# CDX-M850MP

# SERVICE MANUAL

*US Model*
*Canadian Model*
*AEP Model*
*UK Model*
*E Model*

**Ver 1.0 2003. 04**

• The tuner and CD sections have no adjustments.

| | |
|---|---|
| Model Name Using Similar Mechanism | CDX-MP40 |
| CD Drive Mechanism Type | MG-393MC-121//K |
| Optical Pick-up Name | KSS-721A |

## SPECIFICATIONS

**AUDIO POWER SPECIFICATIONS (US MODEL)**
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

### CD player section

| | |
|---|---|
| Signal-to-noise ratio | 90 dB |
| Frequency response | 10 – 20,000 Hz |
| Wow and flutter | Below measurable limit |

### Tuner section

**FM**

| | |
|---|---|
| Tuning range | 87.5 – 107.9 MHz (US, Canadian model)<br>87.5 – 108.0 MHz (AEP, UK, E model) |
| Antenna terminal | External antenna connector |
| Intermediate frequency | 10.7 MHz/450 kHz |
| Usable sensitivity | 9 dBf |
| Selectivity | 75 dB at 400 kHz |
| Signal-to-noise ratio | 67 dB (stereo),<br>69 dB (mono) |
| Harmonic distortion at 1 kHz | 0.5% (stereo),<br>0.3% (mono) |
| Separation | 35 dB at 1 kHz |
| Frequency response | 30 – 15,000 Hz |

**AM (US, Canadian model)**

| | |
|---|---|
| Tuning range | 530 – 1,710 kHz |
| Antenna terminal | External antenna connector |
| Intermediate frequency | 10.7 MHz/450 kHz |
| Sensitivity | 30 µV |

**MW/LW (AEP, UK, E model)**

| | |
|---|---|
| Tuning range | MW: 531 – 1,602 kHz<br>LW: 153 – 279 kHz |
| Aerial terminal | External aerial connector |
| Intermediate frequency | 10.7 MHz/450 kHz |
| Sensitivity | MW: 30 µV<br>LW: 40 µV |

### Power amplifier section

| | |
|---|---|
| Outputs | Speaker outputs (sure seal connectors) |
| Speaker impedance | 4 – 8 ohms |
| Maximum power output | 52 W × 4 (at 4 ohms) |

### General

| | |
|---|---|
| Outputs | Audio outputs (front/rear)<br>Subwoofer output (mono)<br>Power antenna relay<br>control terminal (US, Canadian model)<br>Power aerial relay<br>control terminal (AEP, UK, E model)<br>Power amplifier control<br>terminal |

– Continued on next page –

# FM/AM COMPACT DISC PLAYER

**US, Canadian Model**

# FM/MW/LW COMPACT DISC PLAYER

**AEP, UK, E Model**

**9-877-224-01**
2003D0400-1
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**Sony Corporation**
**e Vehicle Company**
**Published by Sony Engineering Corporation**

SONY®

| | |
|---|---|
| Inputs | Telephone ATT control terminal<br>Illumination control terminal<br>BUS control input terminal<br>BUS audio input or AUX IN terminal<br>Remote controller input terminal<br>Antenna input terminal (US, Canadian model)<br>Aerial input terminal (AEP, UK, E model) |
| Tone controls | US, Canadian model:<br>Bass ±10 dB at 62 Hz<br>Treble ±10 dB at 16 kHz<br>AEP, UK, E model:<br>Bass ±8 dB at 100 Hz<br>Treble ±8 dB at 10 kHz |
| Loudness | +8 dB at 100 Hz<br>+2 dB at 10 kHz |
| Power requirements | 12 V DC car battery (negative ground) |
| Dimensions | Approx. 178 × 50 × 186 mm (7 1/8 × 2 × 7 3/8 in.) (w/h/d) |
| Mounting dimensions | Approx. 182 × 53 × 163 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d) |
| Mass | Approx. 1.5 kg (2 lb. 10 oz.) |
| Supplied accessories | Parts for installation and connections (1 set)<br>Front panel cover (1) (US, Canadian model)<br>Card remote commander RM-X110 (US, Canadian model)<br>RM-X111 (AEP, UK, E model) |

**Note**

This unit cannot be connected to a digital preamplifier or an equalizer.

*Design and specifications are subject to change without notice.*

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

**ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!**

**LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.**

## SERVICE NOTES

### NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

### NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

### Notes on Chip Component Replacement

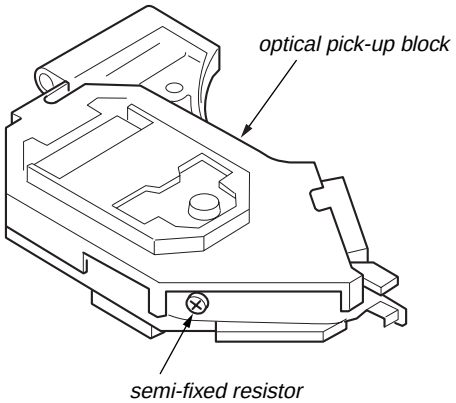
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

## US, Canadian model:

**CAUTION**

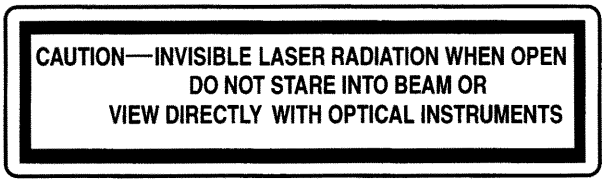
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



**AEP, UK, E model:**

This label is located on the bottom of the chassis.

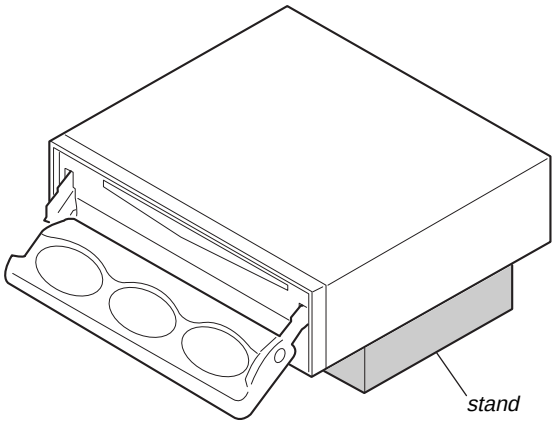



This label is located on the drive unit's internal chassis.

When replacing the chassis (T) of mechanism deck which have the "CAUTION LABEL" attached, please be sure to put a new CAUTION LABEL (3-223-913-11) to the chassis (T).

**NOTE FOR THE OPENING OF THE FRONT PANEL**

In this set, the front panel is lowered to below the bottom face when it is opened.
When servicing the set, place it on a stand having a height of about 2 cm.




**TEST DISCS**

This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

**Notes on CD-Rs (recordable CDs)/CD-RWs (rewritable CDs)**

This unit can play the following discs:

| Type of discs | Label on the disc |
|---|---|
| Audio CD | COMPACT disc DIGITAL AUDIO Recordable<br>COMPACT disc DIGITAL AUDIO ReWritable |
| MP3 files | COMPACT disc DIGITAL AUDIO Recordable<br>COMPACT disc DIGITAL AUDIO ReWritable<br>COMPACT disc Recordable<br>COMPACT disc ReWritable |

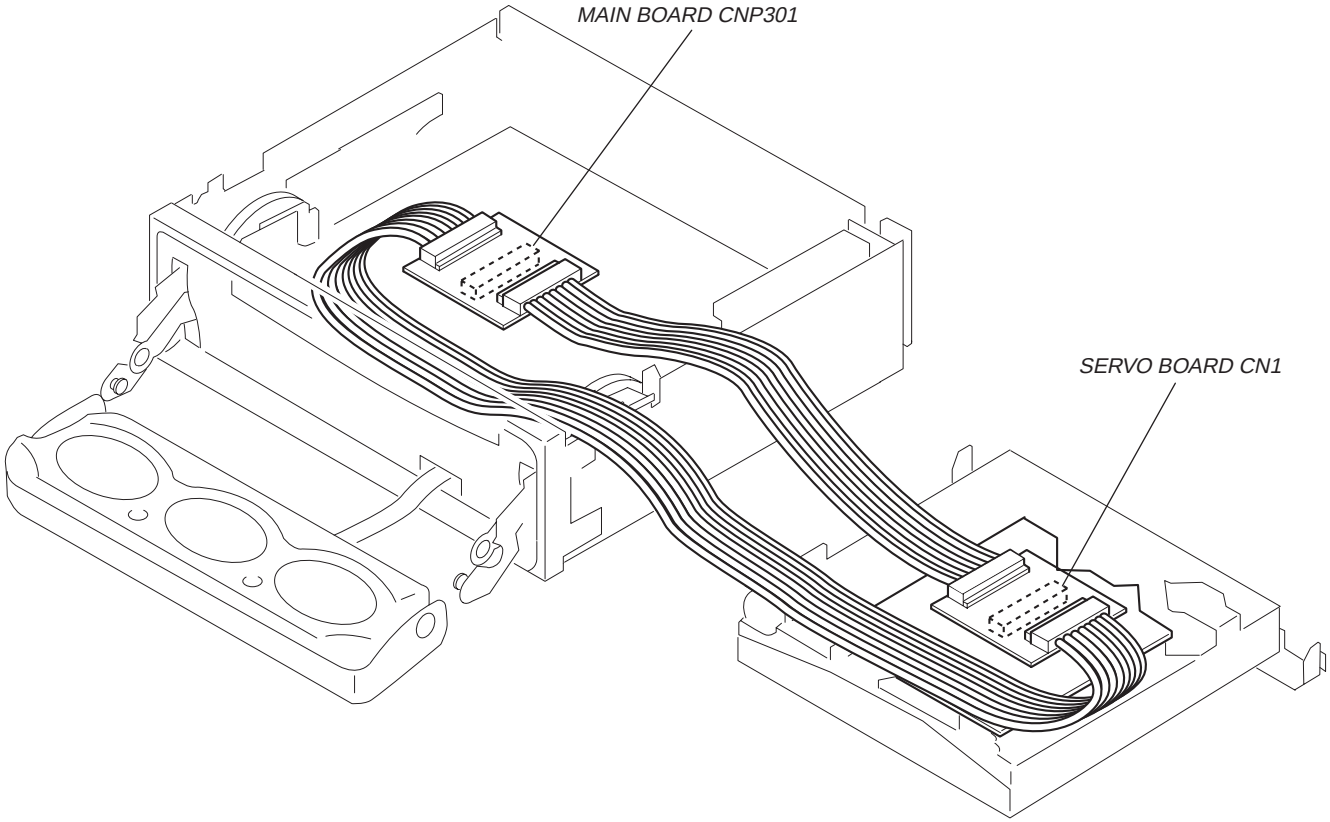
- Some CD-Rs/CD-RWs (depending on the equipment used for its recording or the condition of the disc) may not play on this unit.
- You cannot play a CD-R/CD-RW that is not finalized*.
- You can play MP3 files recorded on CD-ROMs, CD-Rs, and CD-RWs.
- A CD-R/CD-RW to which a session can be added can be played.

* A process necessary for a recorded CD-R/CD-RW disc to be played on the audio CD player.

### EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

- Connect the MAIN board (CNP301) and the SERVO board (CN1) with the extension cable (Part No. J-2502-062-1).



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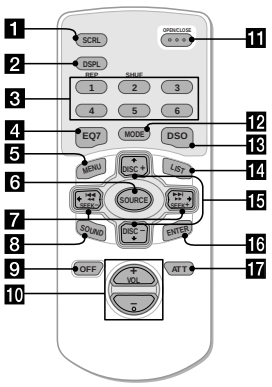
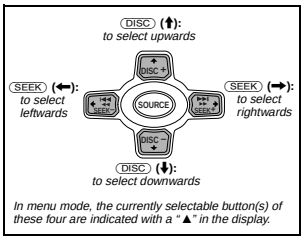
# SECTION 1
# GENERAL

This section is extracted from instruction manual.

## Location of controls (US, Canadian Model)

***Card remote commander RM-X110***




*In menu mode, the currently selectable button(s) of these four are indicated with a "▲" in the display.*

***Note***
*If the display disappears by pressing (OFF), it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.*

***Tip***
*Refer to "Replacing the lithium battery" for details on how to replace the batteries (page 25).*

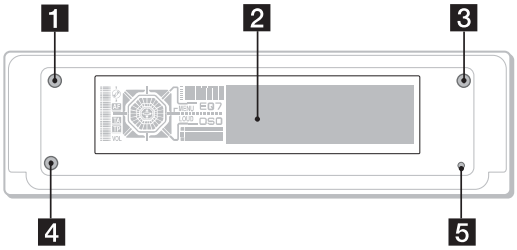
Refer to the pages listed for details.

**1 SCRL (scroll) button** *12*
**2 DSPL (display mode change) button** *12, 14*
**3 Number buttons**
① **REP** *13*
② **SHUF** *13*
To store stations/receive stored stations.
**4 EQ7 button** *22*
**5 MENU button**
To display the menus.
**6 SOURCE (Power on/Radio/CD/MD*1/AUX*2) button**
To select the source.
**7 SEEK/AMS (←/→) buttons**
To skip tracks/fast-forward, reverse a track/tune in stations automatically, find a station manually/select a setting.
**8 SOUND button** *20*
**9 OFF (Stop/Power off) button** *11, 21, 24*
**10 VOL (+/–) buttons**
To turn up or down the volume.
**11 OPEN/CLOSE button** *10, 11*
**12 MODE button**
To change the operation.
**13 DSO button** *23*
**14 LIST button** *15, 18*
**15 DISC/ALBUM (↑/↓) buttons**
To receive preset stations/change the disc*3, skip albums*4/select a menu.
**16 ENTER button**
To enter a setting.
**17 ATT button** *20*

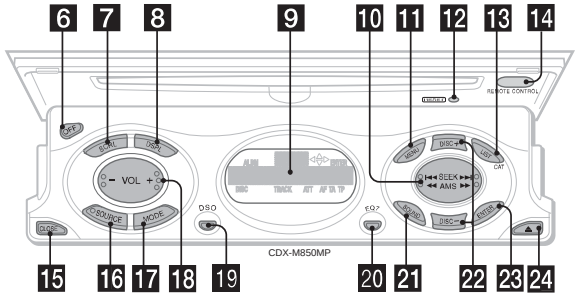
*1 When an optional MD unit is connected.
*2 Available only when an optional Sony portable device is connected to AUX IN terminal of the unit. You cannot connect any optional CD/MD units at the same time.
*3 When an optional CD/MD unit is connected.
*4 Available only when an MP3 file is played.



***Main display side***




***Operation side***




**The buttons on the unit share the same functions as those on the card remote commander.**

**1 OPEN button** 10, 11
**2 Main display window**
**3 IMAGE button** 23
**4 14 Receptor for the card remote commander**
**5 12 RESET button** 9
**6 OFF (Stop/Power off) button***1
**7 SCRL (scroll) button**
**8 DSPL (display mode change) button**
**9 Sub display window**
**10 SEEK/AMS (I◀◀ ◀◀/▶▶ ▶▶I) button**
**11 MENU button**
**13 LIST/CAT*2 button**
**15 CLOSE (front panel close) button** 10
**16 SOURCE button**
**17 MODE button**
**18 VOL (–/+) button**
**19 DSO button**
**20 EQ7 button**
**21 SOUND button**
**22 DISC/ALBUM (+/–) buttons**
**23 ENTER button**
**24 ⏏ (eject) button** 11

**continue to next page →**



## Connection example (US, Canadian Model)

### Connection example (2)

***Notes* (2-A)**
- *Be sure to connect the ground cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

***Tip* (2-B-ⓑ)**
*For connecting two or more CD/MD changers, the source selector XA-C30 (optional) is necessary.*

### Exemple de raccordement (2)

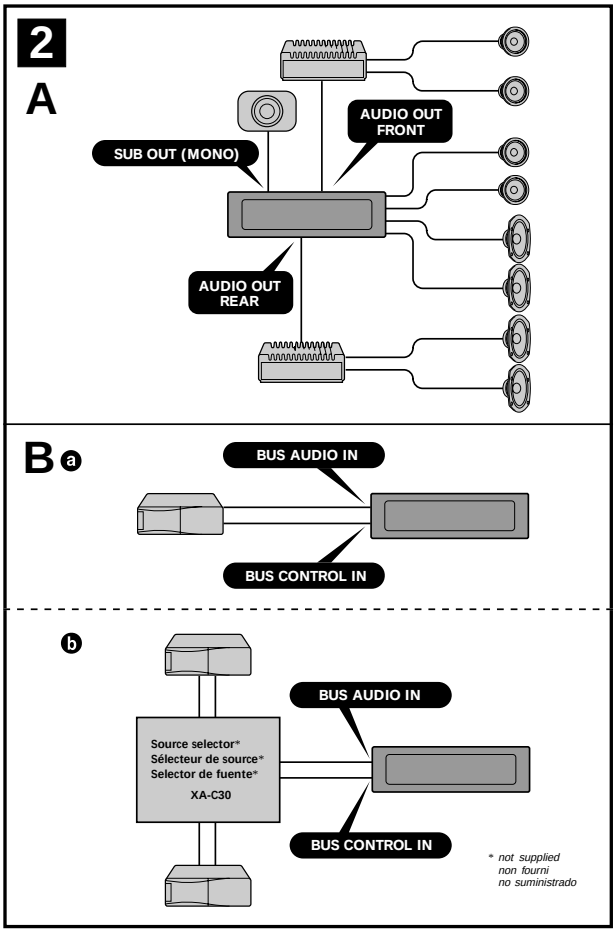
***Remarques* (2-A)**
- *Raccordez d'abord le fil de masse avant de raccorder l'amplificateur.*
- *Si vous raccordez un amplificateur de puissance en option et que vous n'utilisez pas l'amplificateur intégré, le bip sonore est désactivé.*

***Conseil* (2-B-ⓑ)**
*Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C30 (en option) est requis.*

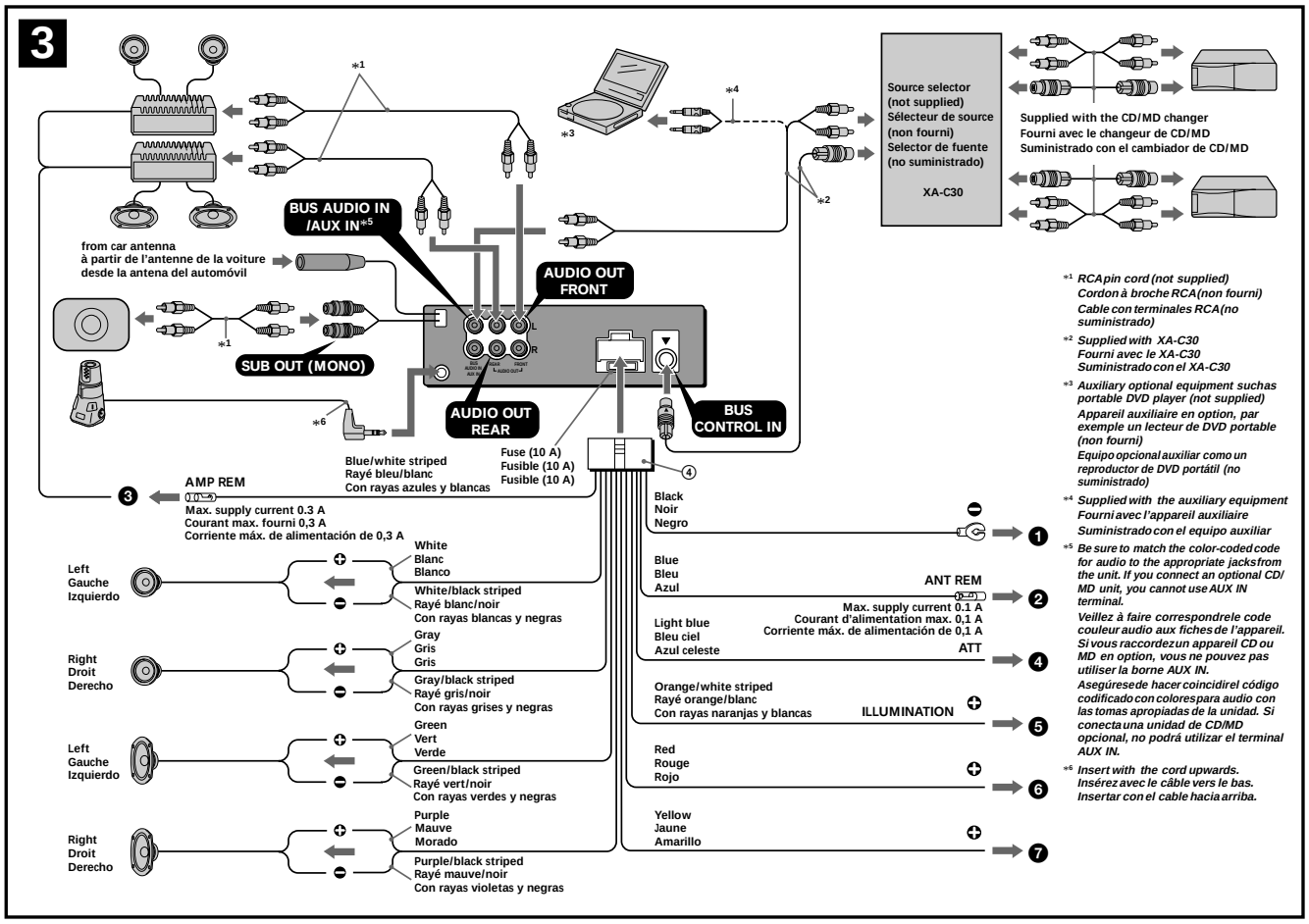
### Ejemplo de conexiones (2)

***Notas* (2-A)**
- *Asegúrese de conectar primero el cable de toma a tierra antes de realizar la conexión al amplificador.*
- *Si conecta un amplificador de potencia opcional y no utiliza el incorporado, los pitidos se desactivarán.*

***Consejo* (2-B-ⓑ)**
*Cuando desee conectar dos o más cambiadores de CD/MD, necesitará un selector de fuente XA-C30 (opcional).*



## Connections (US, Canadian Model)




## Connection diagram (3)

❶ **To a metal surface of the car**
*First connect the black ground lead, then connect the orange/white striped, yellow, and red power input leads.*

❷ **To the power antenna control lead or power supply lead of antenna booster amplifier**

***Notes***
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
*This connection is only for amplifiers. Connecting any other system may damage the unit.*

❹ **To the interface cable of a car telephone**

❺ **To a car's illumination signal**
*Be sure to connect the black ground lead to a metal surface of the car first.*

❻ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**

***Notes***
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times.*
  *Be sure to connect the black ground lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❼ **To the +12 V power terminal which is energized at all times**
*Be sure to connect the black ground lead to a metal surface of the car first.*

***Notes on the control and power supply leads***
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without relay box cannot be used with this unit.*

***Memory hold connection***
*When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.*

***Notes on speaker connection***
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker wires installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker cords to each other.*

***Note on connection***
*If speaker and amplifier are not connected correctly, "Failure" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.*

## Schéma de raccordement (3)

❶ **À un point métallique de la voiture**
*Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation rayé orange/blanc, jaune, et rouge.*

❷ **Vers le fil de commande de l'antenne électrique ou le fil d'alimentation de l'amplificateur d'antenne**

***Remarques***
- *Il n'est pas nécessaire de raccorder ce fil s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les fils de commande et d'alimentation ».*

❸ **Au niveau du AMP REMOTE IN de l'amplificateur de puissance en option**
*Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.*

❹ **Vers le câble d'interface d'un téléphone de voiture**

❺ **Vers le connecteur du signal d'éclairage de la voiture**
*Raccordez d'abord le fil de masse noir à un point métallique du véhicule.*

❻ **À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**

***Remarques***
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence.*
  *Raccordez d'abord le fil de masse noir à un point métallique du véhicule.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les fils de commande et d'alimentation ».*

❼ **À la borne +12 V qui est alimentée en permanence**
*Raccordez d'abord le fil de masse noir à un point métallique du véhicule.*

***Remarques sur les fils de commande et d'alimentation***
- *Le fil de commande de l'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le fil de commande de l'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

***Raccordement pour la conservation de la mémoire***
*Lorsque le fil d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.*

***Remarques sur le raccordement des haut-parleurs***
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de masse de cet appareil à la borne négative (–) de l'enceinte.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les fils des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un fil négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

***Remarque sur le raccordement***
*Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « Failure » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.*

## Diagrama de conexión (3)

❶ **A una superficie metálica del automóvil**
*Conecte primero el cable de toma a tierra negro, y después los cables con raya naranja/blanca, amarillo, y rojo de entrada de alimentación.*

❷ **Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de antena**

***Notas***
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❸ **Para conectar a AMP REMOTE IN del amplificador de potencia opcional**
*Esta conexión es sólo para amplificadores.*
*La conexión de cualquier otro sistema puede dañar la unidad.*

❹ **Al cable de interfaz de un teléfono para automóvil**

❺ **A una señal de iluminación del automóvil**
*Asegúrese de conectar primero el cable de toma a tierra negro a una superficie metálica del automóvil.*

❻ **Al terminal de alimentación de +12 V que recibe energía en la posición de accesorio del interruptor de la llave de encendido**

***Notas***
- *Si no hay posición de accesorio, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
  *Asegúrese de conectar primero el cable de toma a tierra negro a una superficie metálica del automóvil.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero/lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❼ **Al terminal de alimentación de +12 V que recibe energía sin interrupción**
*Asegúrese de conectar primero el cable de toma a tierra negro a una superficie metálica del automóvil.*

***Notas sobre los cables de control y de fuente de alimentación***
- *El cable de control de la antena motorizada (azul) suministrará + cc cc de + 12V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener más información, consulte a su proveedor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

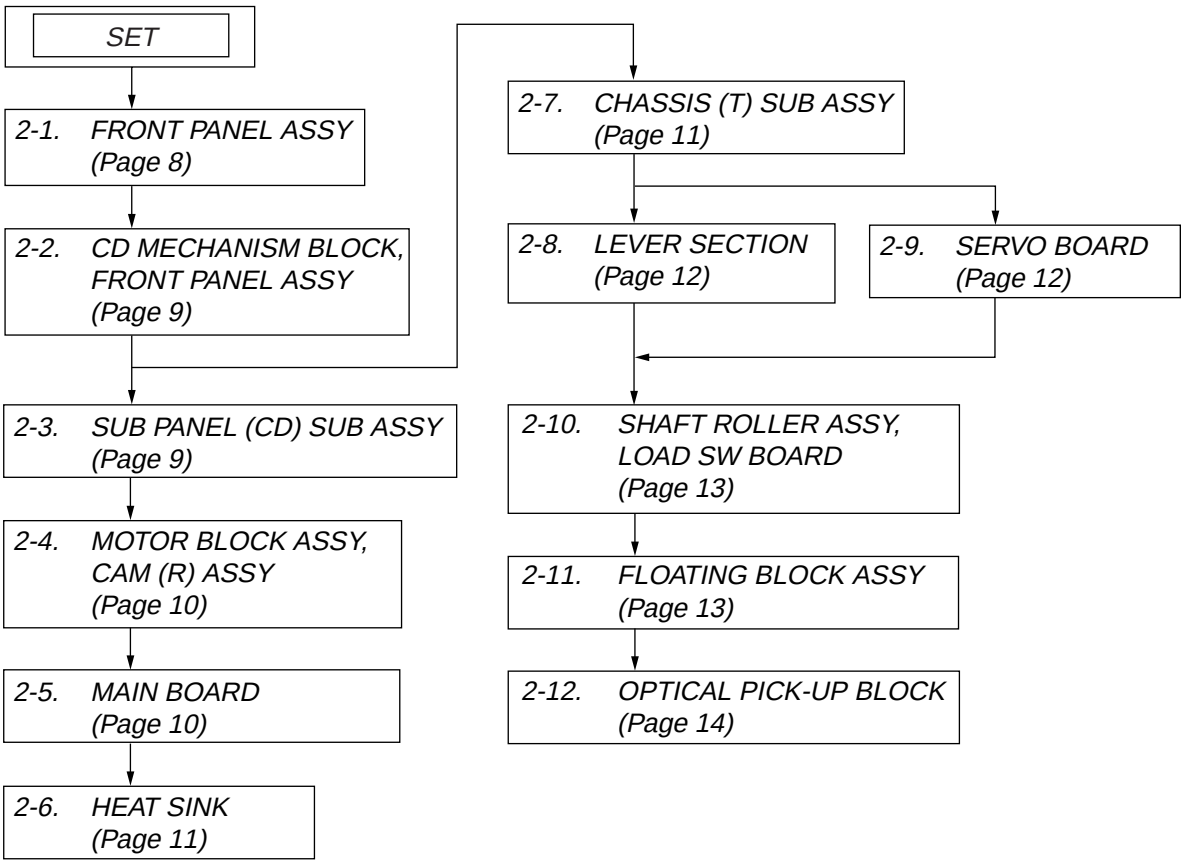
***Conexión para protección de la memoria***
*Si conecta el conductor de entrada amarillo, el circuito de la memoria recibirá siempre alimentación, aunque ponga la llave de encendido en la posición OFF.*

***Notas sobre la conexión de los altavoces***
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ω con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de toma a tierra de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallos de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si su unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

***Nota sobre la conexión***
*Si el altavoz y el amplificador no están conectados correctamente, aparecerá "Failure" en la pantalla. Si es así, compruebe la conexión de ambos dispositivos.*

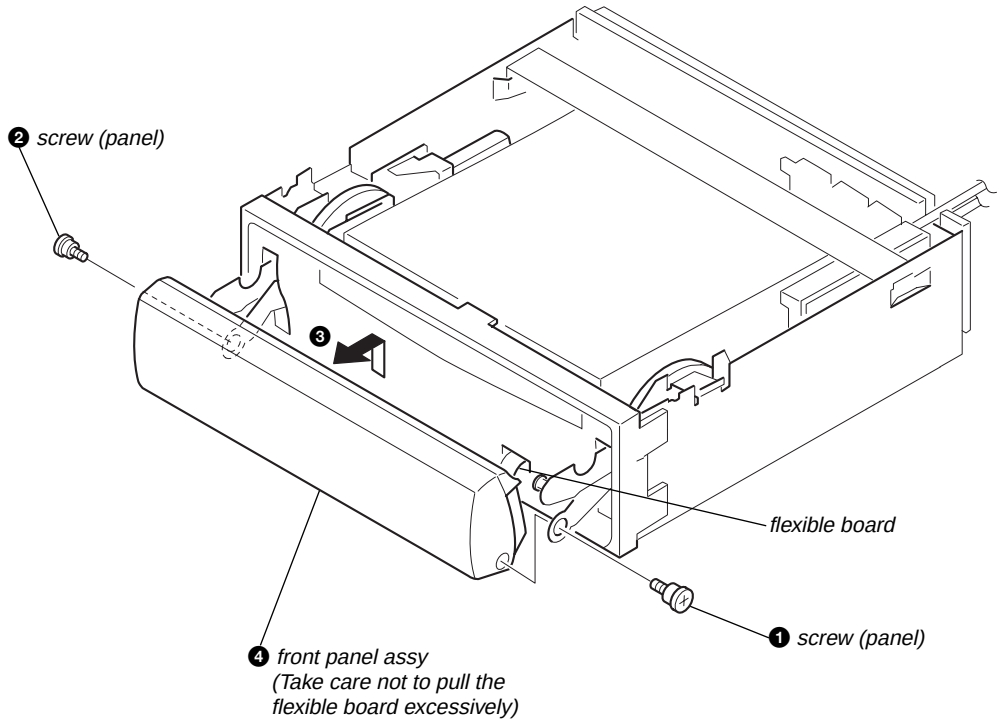
# SECTION 2
# DISASSEMBLY

**Note :** This set can be disassemble according to the following sequence.

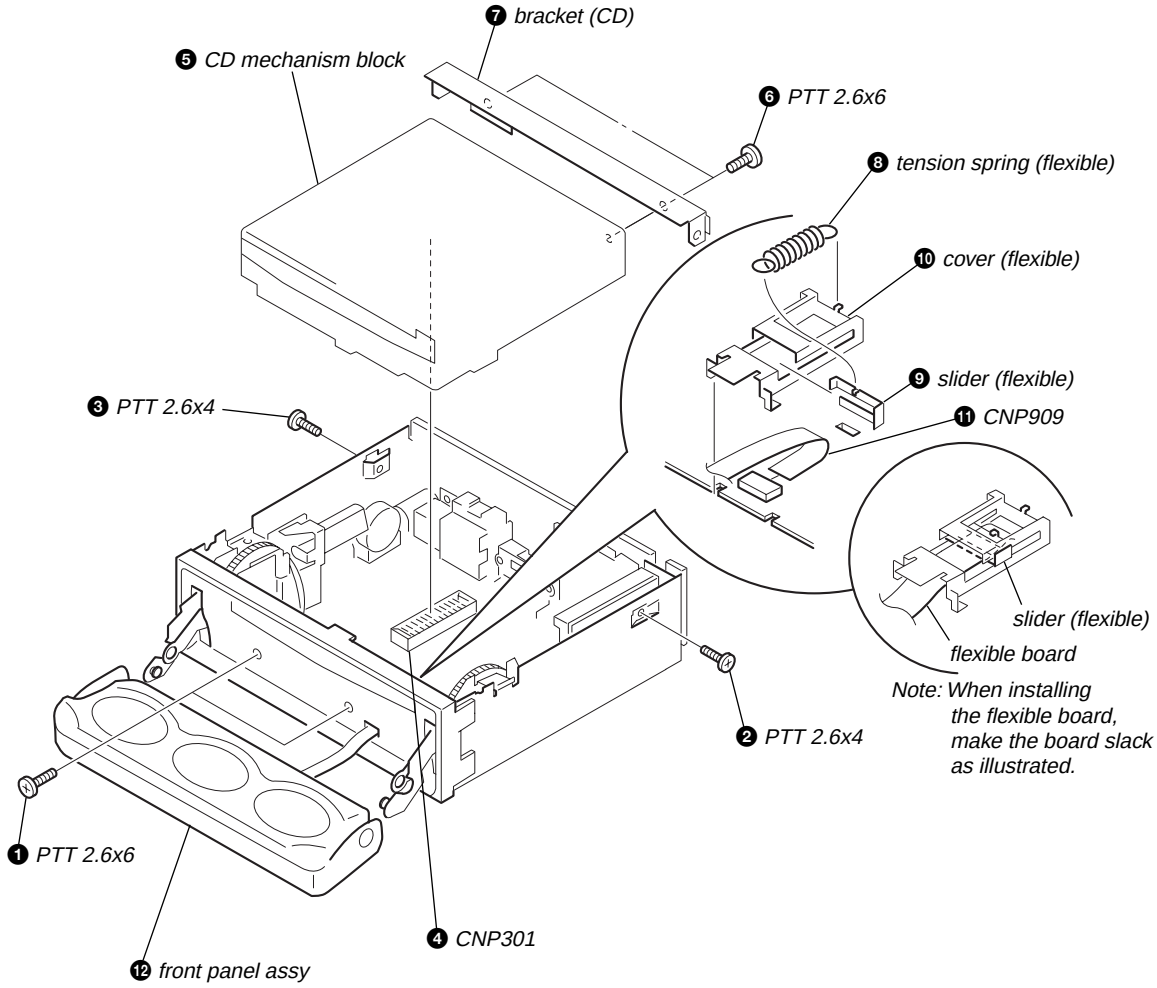

SET
2-1. FRONT PANEL ASSY (Page 8)
2-2. CD MECHANISM BLOCK, FRONT PANEL ASSY (Page 9)
2-3. SUB PANEL (CD) SUB ASSY (Page 9)
2-4. MOTOR BLOCK ASSY, CAM (R) ASSY (Page 10)
2-5. MAIN BOARD (Page 10)
2-6. HEAT SINK (Page 11)
2-7. CHASSIS (T) SUB ASSY (Page 11)
2-8. LEVER SECTION (Page 12)
2-9. SERVO BOARD (Page 12)
2-10. SHAFT ROLLER ASSY, LOAD SW BOARD (Page 13)
2-11. FLOATING BLOCK ASSY (Page 13)
2-12. OPTICAL PICK-UP BLOCK (Page 14)

**Note :** Follow the disassembly procedure in the numerical order given.

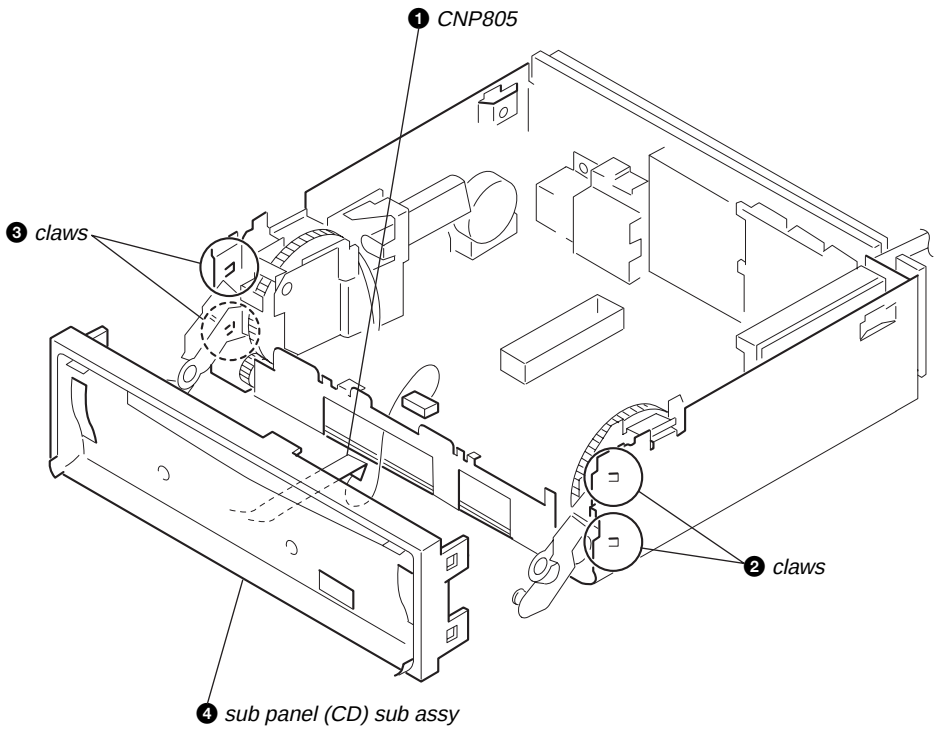
### 2-1. FRONT PANEL ASSY



## 2-2. CD MECHANISM BLOCK, FRONT PANEL ASSY

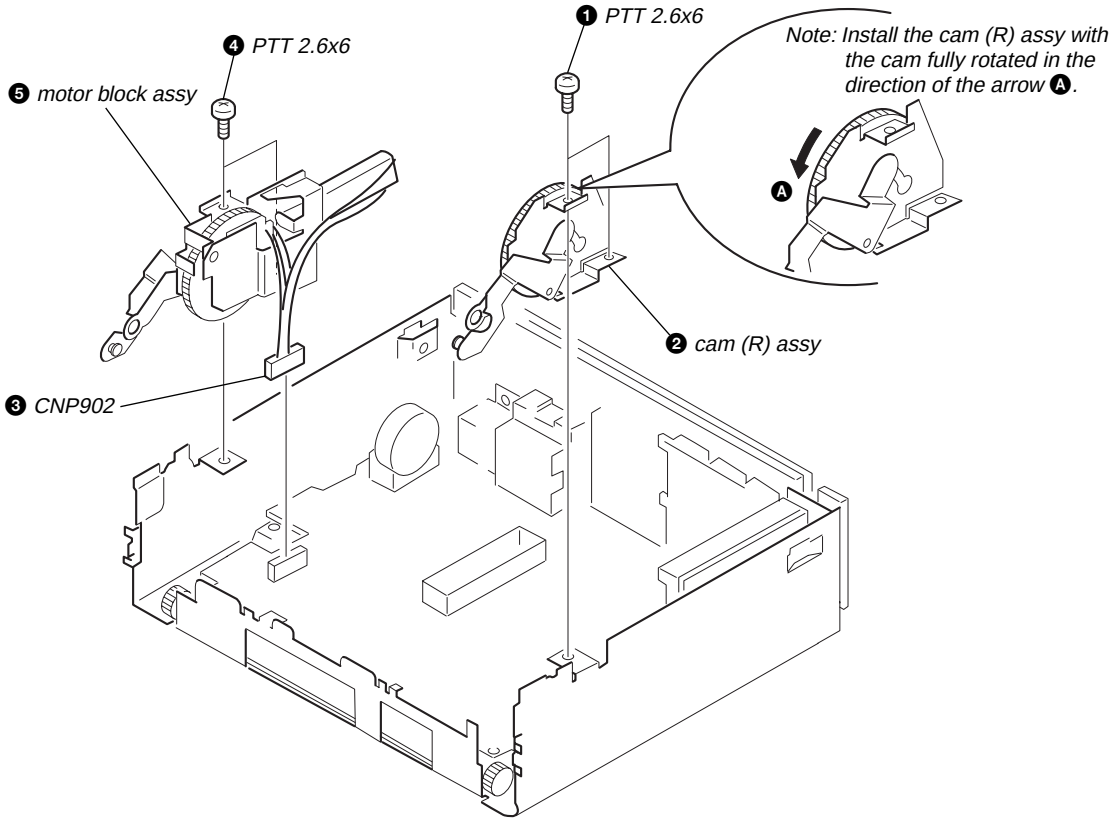



## 2-3. SUB PANEL (CD) SUB ASSY

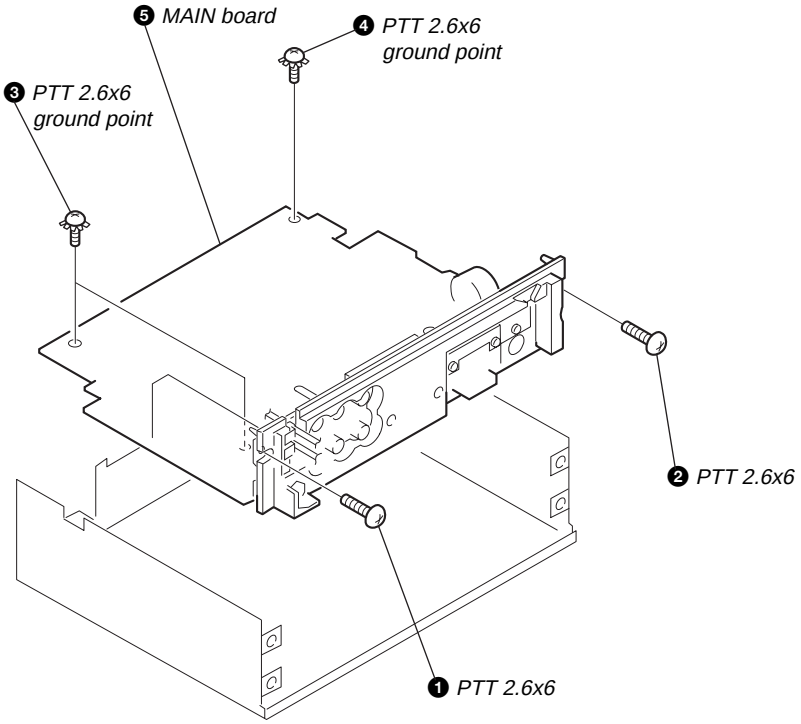


## 2-4. MOTOR BLOCK ASSY, CAM (R) ASSY

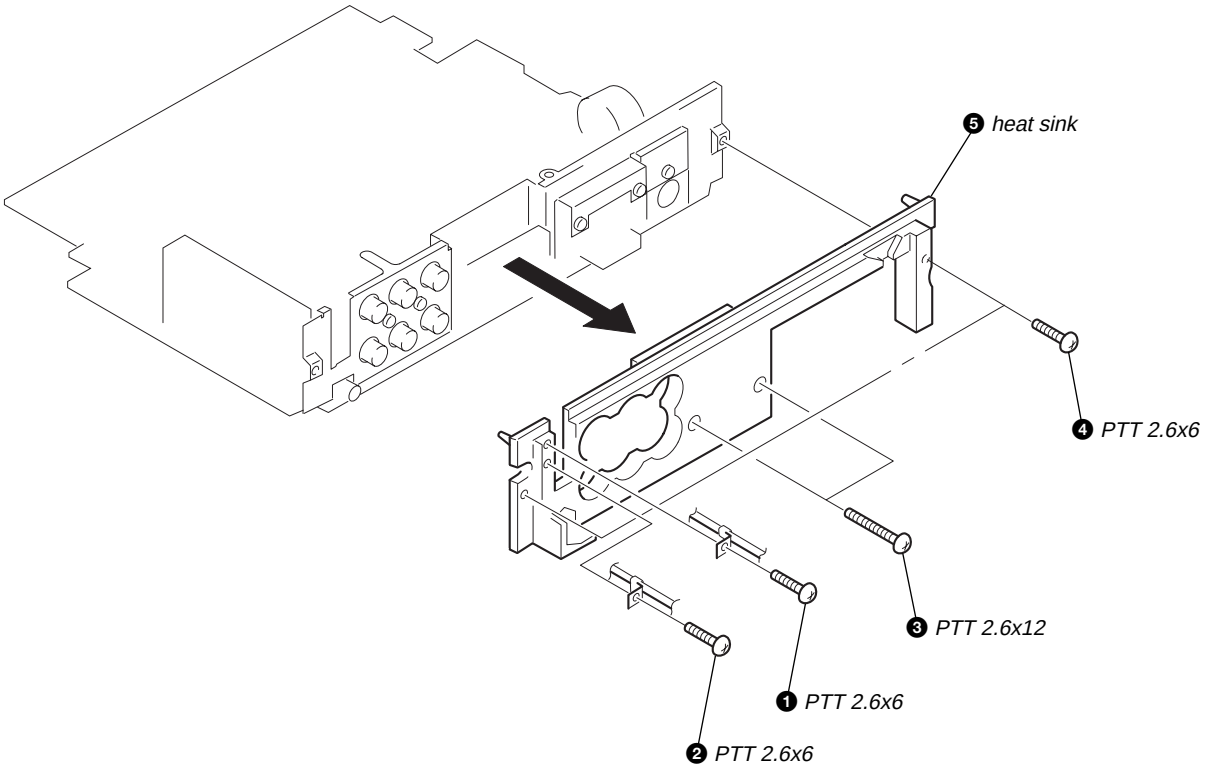
**Note :** Install the motor block assy and cam (R) assy in this roder.
For phase alignment between cams (L) and (R), see page 15 and 17.


❶ PTT 2.6x6
❹ PTT 2.6x6
❺ motor block assy
Note: Install the cam (R) assy with the cam fully rotated in the direction of the arrow Ⓐ.
Ⓐ
❷ cam (R) assy
❸ CNP902

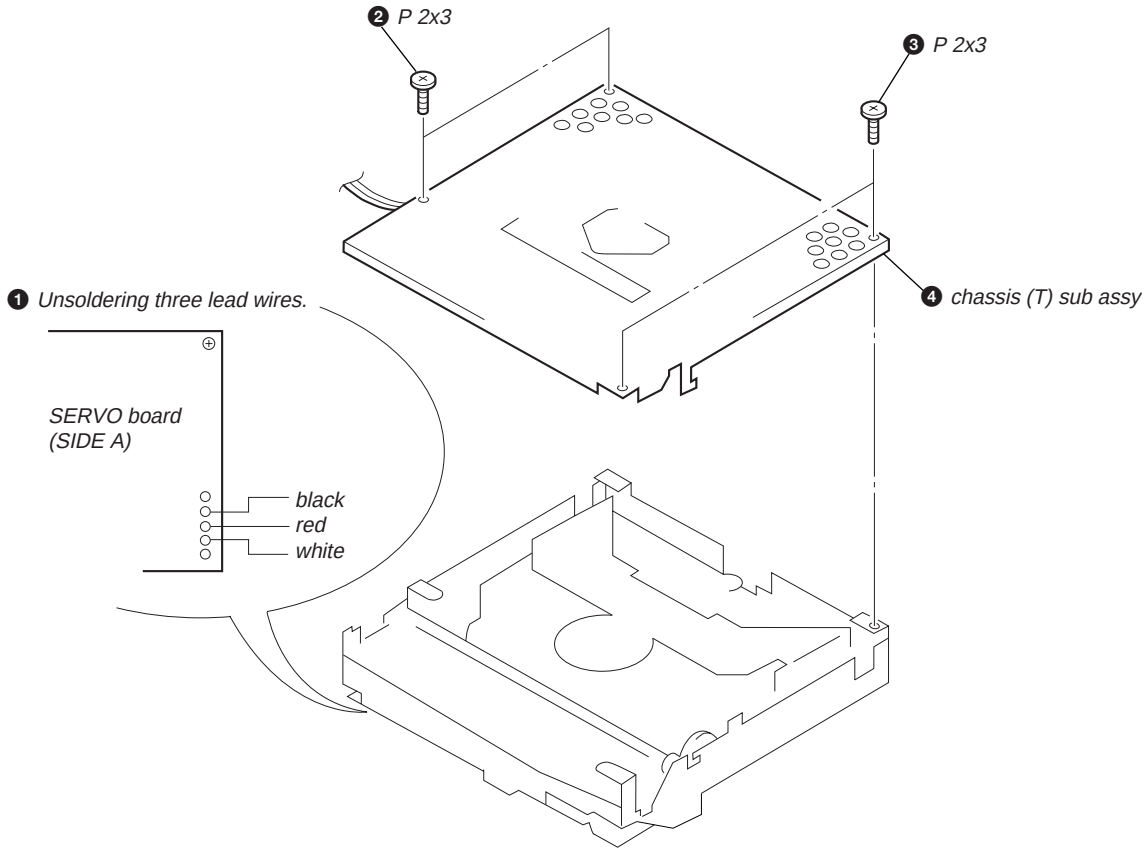
## 2-5. MAIN BOARD



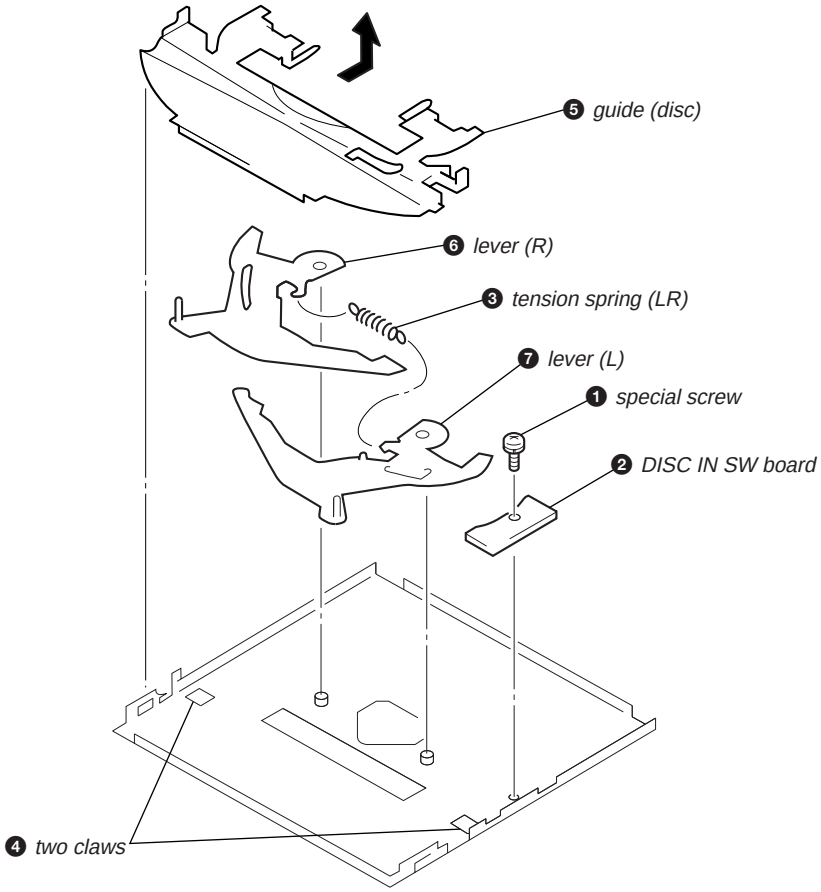
## 2-6. HEAT SINK



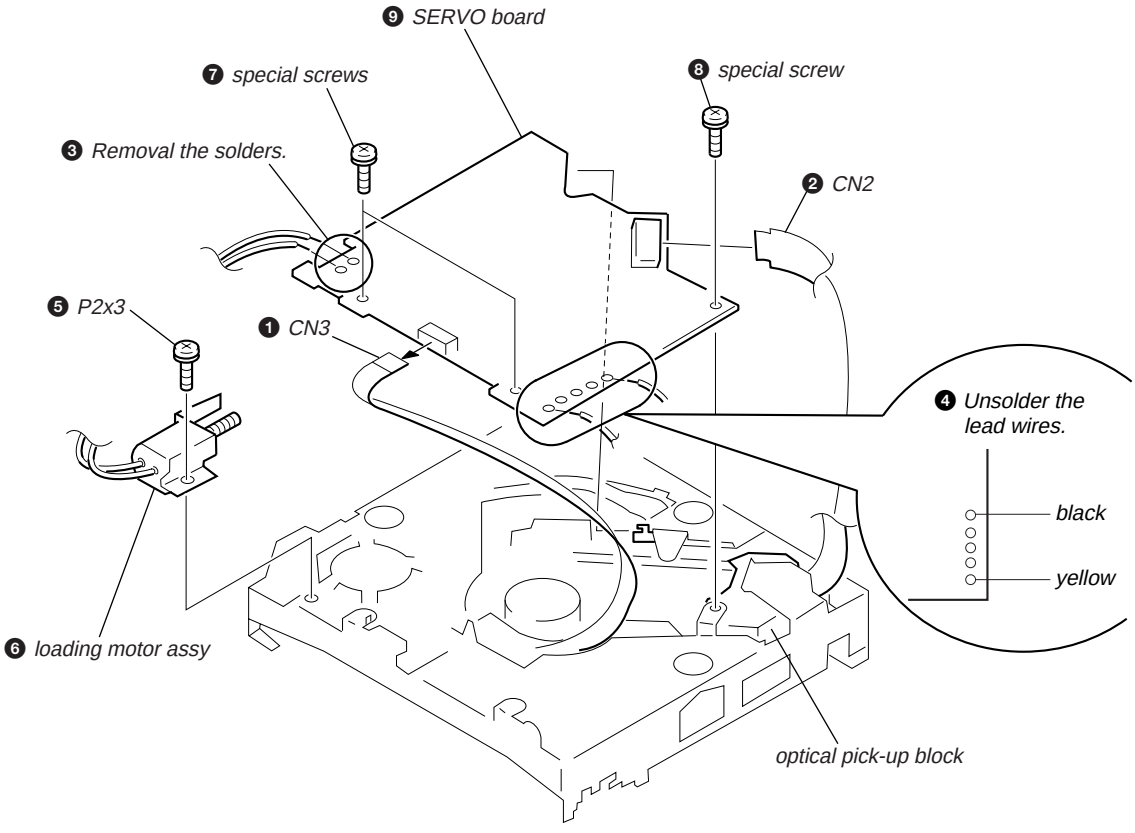

## 2-7. CHASSIS (T) SUB ASSY



## 2-8. LEVER SECTION




## 2-9. SERVO BOARD



## 2-10. SHAFT ROLLER ASSY, LOAD SW BOARD

• When installing, take note of the positions arm (roller) and washers. (Fig. 1)

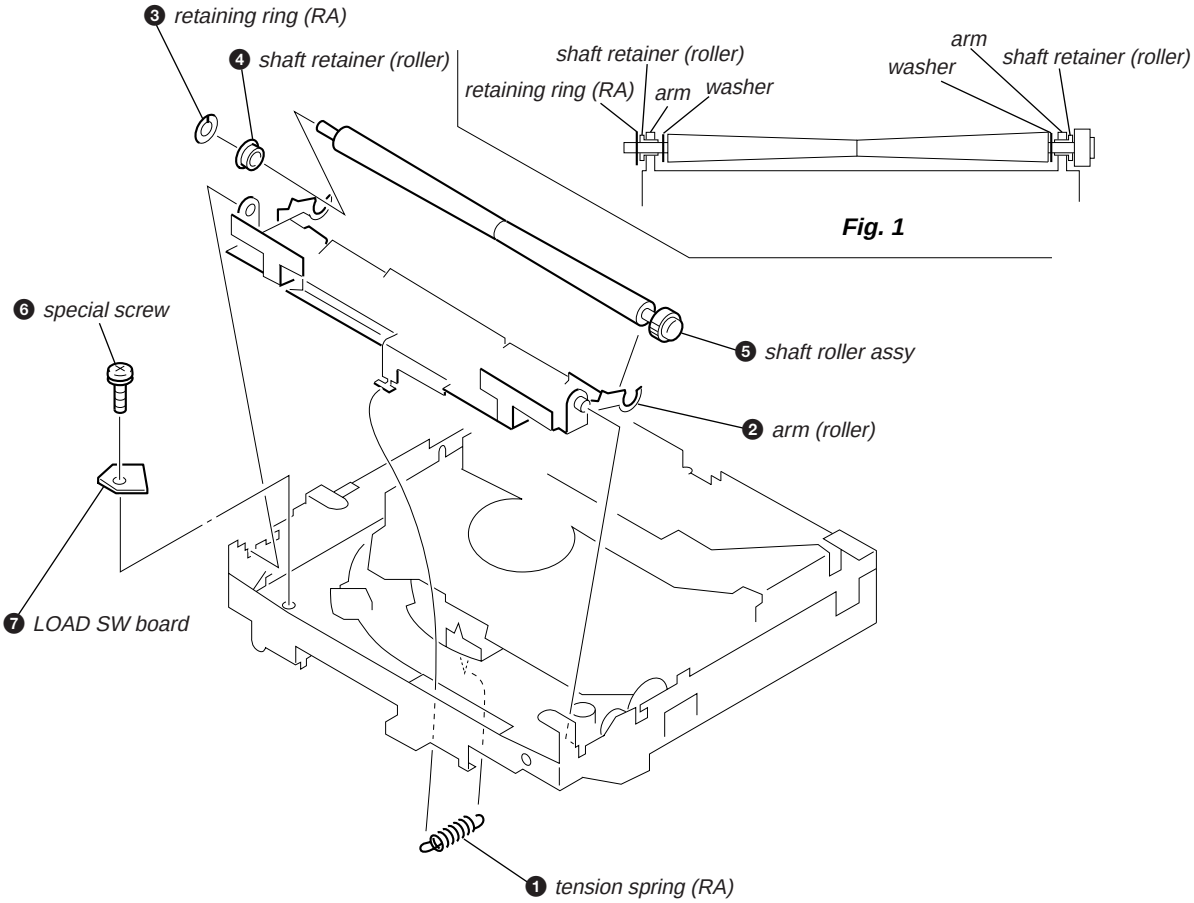
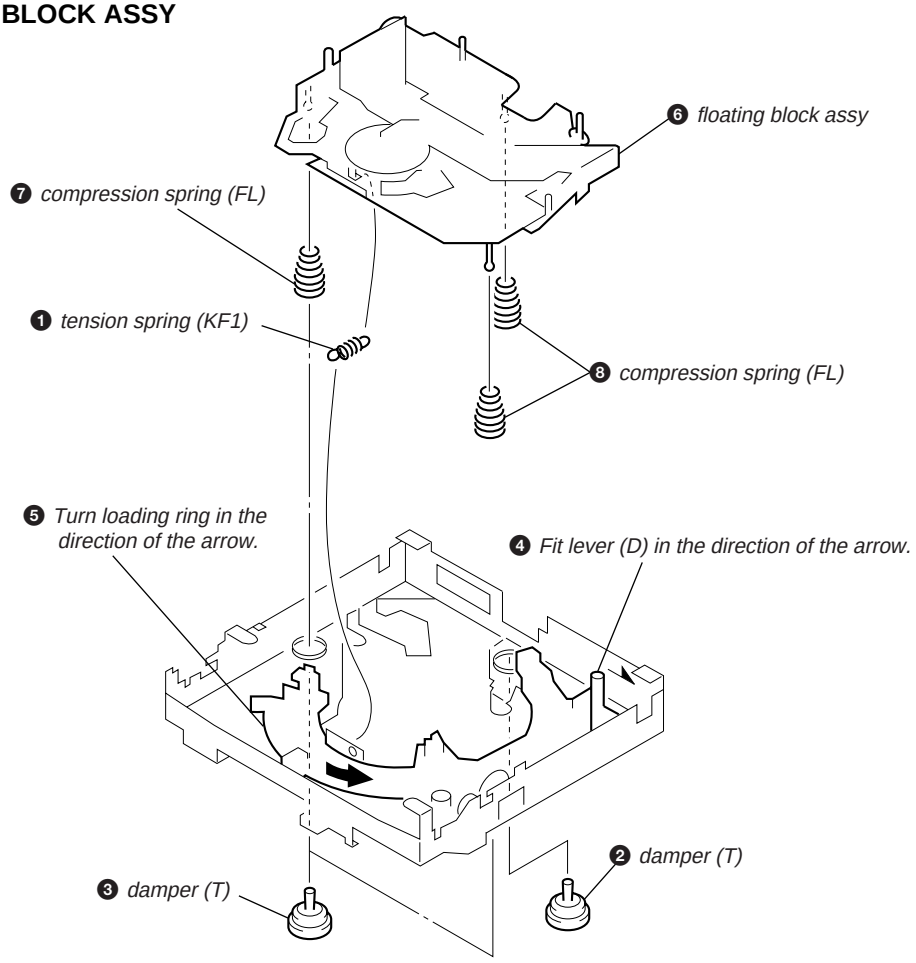
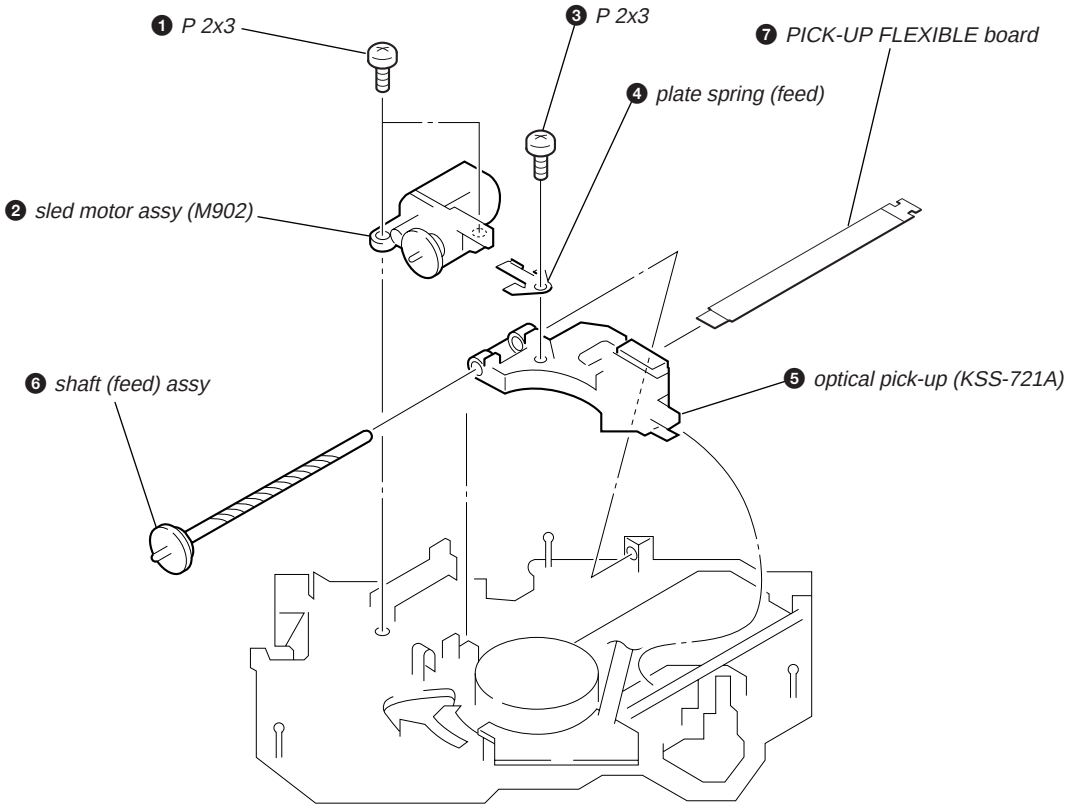



***Fig. 1***

## 2-11. FLOATING BLOCK ASSY

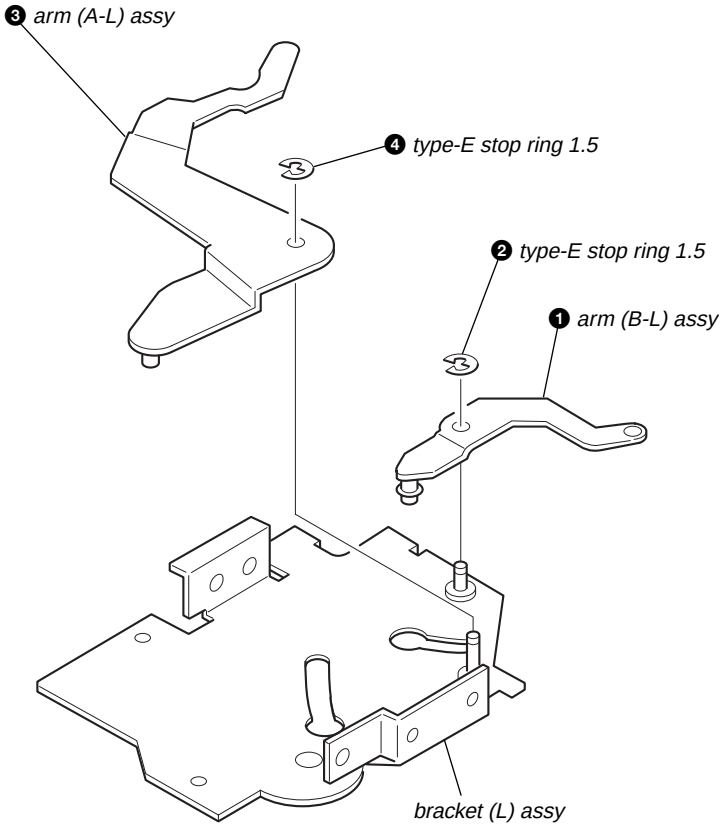

❻ floating block assy
❼ compression spring (FL)
❶ tension spring (KF1)
❽ compression spring (FL)
❺ Turn loading ring in the direction of the arrow.
❹ Fit lever (D) in the direction of the arrow.
❷ damper (T)
❸ damper (T)

## 2-12. OPTICAL PICK-UP BLOCK



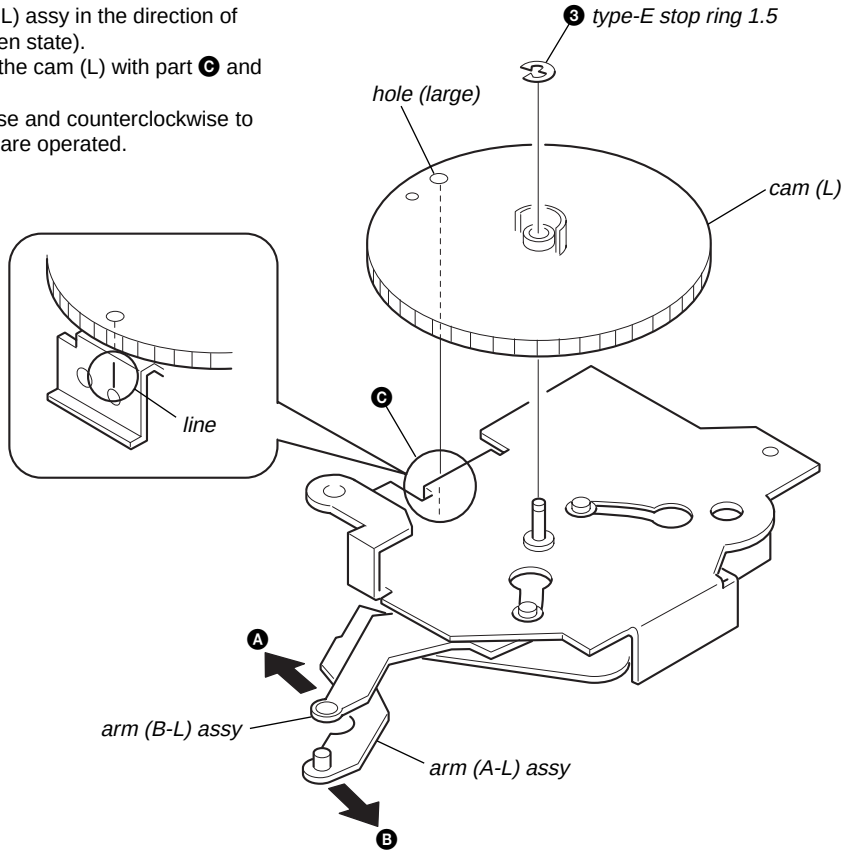
# SECTION 3
# PHASE ALIGNMENT

## 3-1. ARM (A-L) ASSY, ARM (B-L) ASSY



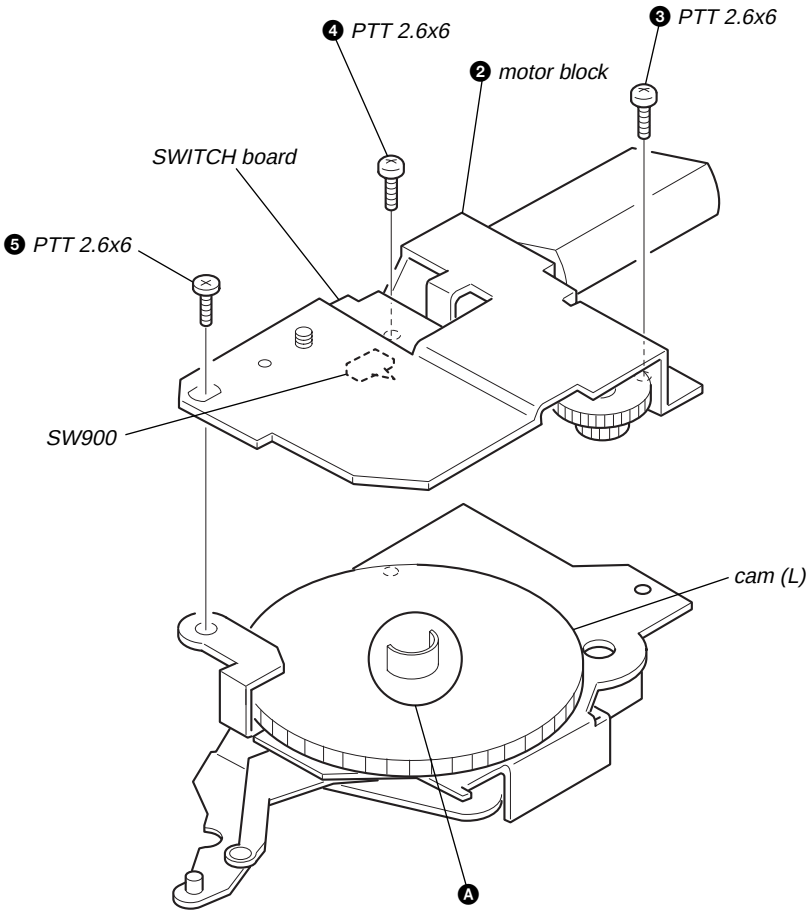

## 3-2. CAM (L)

❶ Move the arm (B-L) assy in the direction of the arrow Ⓐ and the arm (A-L) assy in the direction of the arrow Ⓑ fully (full open state).
❷ Align the hole (large) on the cam (L) with part Ⓒ and install the cam.
❹ Turn the cam (L) clockwise and counterclockwise to verify that both the arms are operated.



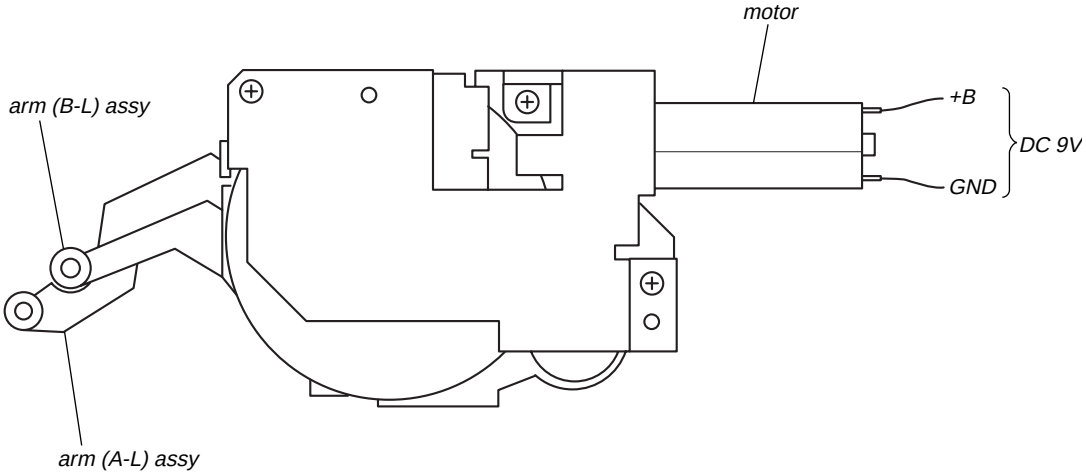
### 3-3. MOTOR BLOCK

❶ Turn the cam (L) and position the cam so that part Ⓐ does not touch the SW board SW900.

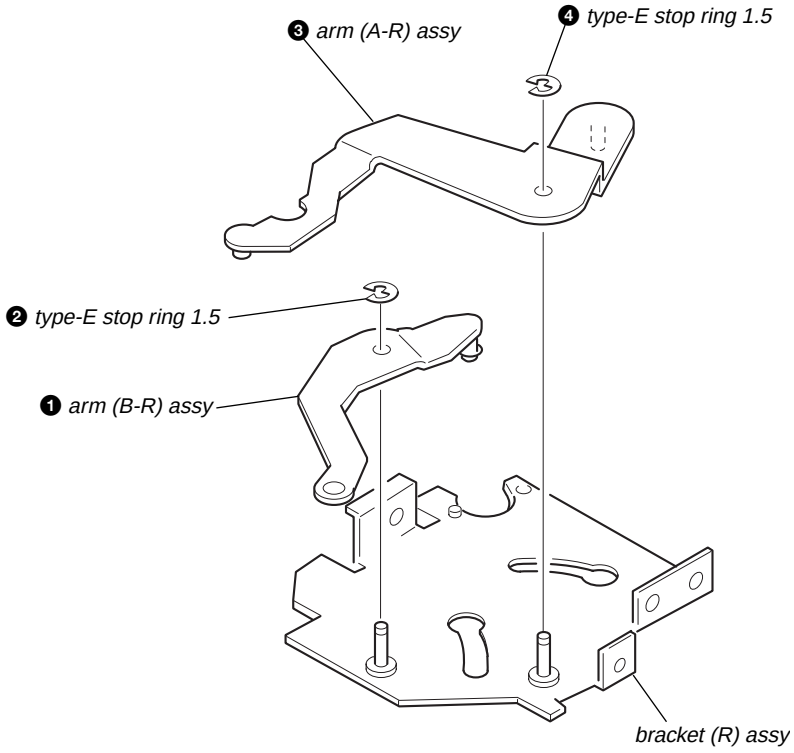



### 3-4. ALIGNMENT BETWEEN ARM (A-L) ASSY AND ARM (B-L) ASSY

❶ Input 9V DC to the motor terminal until the cam (L) stops rotating.
Take care to avoid overload of the motor.
❷ Verify that the arm (A-L) assy and arm (B-L) assy are positioned as shown below (full open).

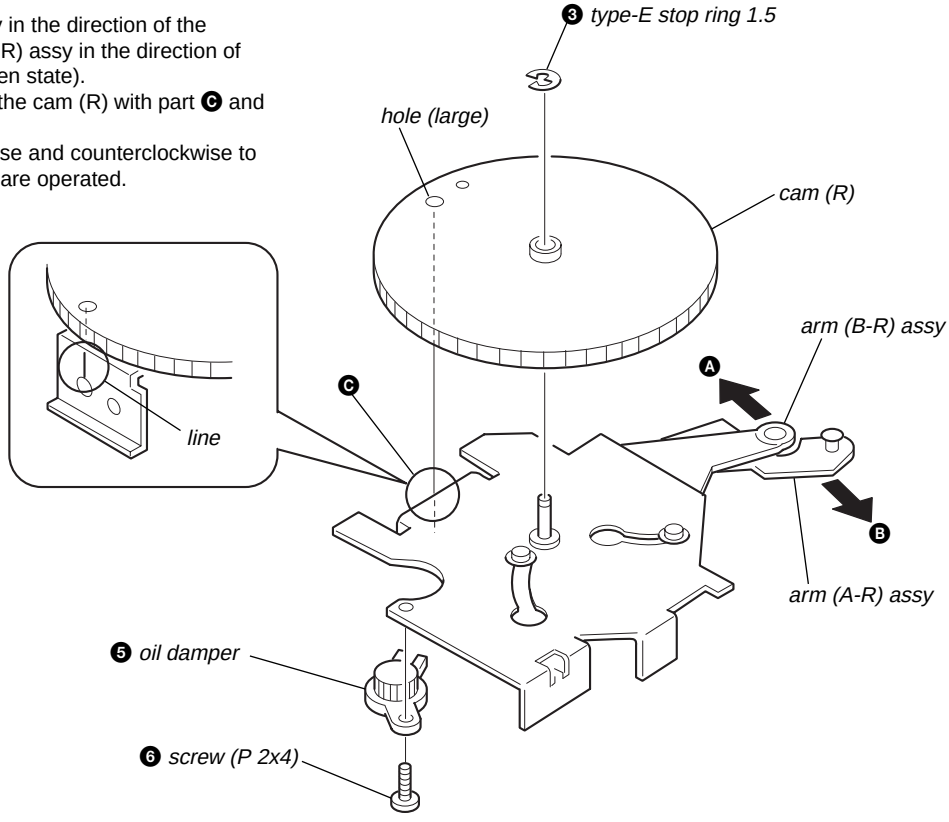


### 3-5. ARM (A-R) ASSY, ARM (B-R) ASSY




### 3-6. CAM (R)

❶ Move the arm (B-R) assy in the direction of the arrow Ⓐ and the arm (A-R) assy in the direction of the arrow Ⓑ fully (full open state).
❷ Align the hole (large) on the cam (R) with part Ⓒ and install the cam.
❹ Turn the cam (R) clockwise and counterclockwise to verify that both the arms are operated.



# SECTION 4
# DIAGRAMS

## 4-1. IC PIN DESCRIPTIONS

**• IC3 HD6432238RWN35TEI (CD MASTER CONTROL) (SERVO Board (2/2))**

| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 1 | $\overline{\text{TEST}}$ | I | Test mode selection pin Not used. (Open) |
| 2 | DECXRST | O | Reset signal output to the DSP IC "L": reset |
| 3 | DECSTBY | O | Standby mode control signal output to the DSP IC "H": standby |
| 4 – 7 | NC | O | Not used. (Open) |
| 8 | PH3 | I | CD PH3 photo sensor detection signal input Not used. (Open) |
| 9 | INSW/PH2 | I | CD mechanism disc in switch detection signal input |
| 10 | $\overline{\text{LIMIT\_SW}}$ | I | CD mechanism in-limit switch detection signal input |
| 11 | $\overline{\text{D\_SW}}$ | I | CD mechanism down switch detection signal input |
| 12 | CVCC | — | System power supply pin (+3.3 V) |
| 13 | NC | O | Not used. (Open) |
| 14 | VSS | — | Ground pin |
| 15 | NC | O | Not used. (Open) |
| 16 | $\overline{\text{PH1}}$ | I | CD PH1 photo sensor detection signal input Not used. (Open) |
| 17 | EJECT | O | CD mechanism loading motor control signal output (eject operation) |
| 18 | LOAD | O | CD mechanism loading motor control signal output (load operation) |
| 19 – 26 | NC | O | Not used. (Open) |
| 27 | FLAG | I | Correction unable detection signal input |
| 28 | RFOK | I | RFOK signal input from the servo IC |
| 29, 30 | NC | O | Not used. (Open) |
| 31 | TXD | O | UART TXD PC connection output Not used. (Open) |
| 32 | RXD | I | UART RXD PC connection input Not used. (Open) |
| 33 | XTALEN | O | Crystal oscillation control signal output to the servo IC |
| 34 | TSTB | O | CD text parameter strobe signal output to the servo IC |
| 35 | STB | O | Data strobe signal output to the servo IC |
| 36 | A0 | O | Command/parameter identification signal output to the servo IC<br>"L": command, "H": parameter |
| 37 | CD_RST | O | Reset signal output to the servo IC |
| 38 | $\overline{\text{PACK}}$ | I | CD text pack sync signal input from the servo IC |
| 39 | NC | O | Not used. (Open) |
| 40 | $\overline{\text{SELF\_SW}}$ | I | CD mechanism self load position detection switch signal input |
| 41 | NC | O | Not used. (Open) |
| 42 | AVSS | — | Ground for A/D converter |
| 43, 44 | NC | O | Not used. (Open) |
| 45, 46 | NC | I | Not used. (Open) |
| 47 | KEY0 | I | Key switch signal input in the test mode Not used. (Open) |
| 48 | KEY1 | I | Mode switch signal input in the test mode Not used. (Open) |
| 49 – 52 | NC | I | Not used. (Open) |
| 53 | AVREF | — | Reference voltage for A/D converter |
| 54 | AVCC | — | Power supply for A/D converter |
| 55 | MD0 | — | CPU operation mode setting pin Connecting to +3.3 V in this set. |
| 56 | MD1 | — | CPU operation mode setting pin Connecting to +3.3 V in this set. |
| 57 | X1A | — | Sub clock oscillator terminal Not used. (Open) |
| 58 | X0A | — | Sub clock oscillator terminal Not used. (Open) |
| 59 | RSTX | I | Microcomputer reset signal input |
| 60 | NMI | — | Not used. (Fixed at "H") |
| 61 | STBY | — | Not used. (Fixed at "H") |
| 62 | VCC | — | Power supply pin (+3.3 V) |
| 63 | XTAL | — | Main clock oscillator pin (12.288 MHz) |
| 64 | VSS | — | Ground pin |
| 65 | XTEAL | — | Main clock oscillator pin (12.288 MHz) |
| 66 | FWE | I | Flash write enable signal input |

| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 67 | MD2 | — | CPU operation mode setting pin |
| 68 | $\overline{\text{FL\_BOOT}}$ | I | Flash write selection signal input (“L”: flash write mode) |
| 69 | FL_W | O | Flash write control signal output connected to pin 66 (FWE) |
| 70 | NC | O | Not used. (Open) |
| 71 | CDMON | O | CD mechanism power supply control signal output |
| 72 | DECINT | I | Interrupt signal input from the DSP IC |
| 73 | CLOSE | O | Front panel operation request output (Close) |
| 74 | OPEN | O | Front panel oparation request output (Open) |
| 75 | LINKOFF | O | LINK OFF signal output for UNI_LINK “H”: link off, “L”: link on |
| 76 | UNI_SO | O | Sony-Bus serial data output to the bus interface |
| 77 | UNI_SI | I | Sony-Bus serial data input from the bus interface |
| 78 | UNI_CK | I | Sony-Bus serial clock input from the bus interface |
| 79 | NC | O | Not used. (Open) |
| 80 | SDA | I/O | I2C interface data input/output |
| 81 | SCL | O | I2C interface clock output |
| 82 | NC | O | Not used. (Open) |
| 83 | TSO | O | Serial data output to the servo IC |
| 84 | TSI | I | Serial data input from the servo IC |
| 85 | TSCK | O | Serial clock output to the servo IC |
| 86 | LEDDAT | O | LED data output for the jig |
| 87 | LEDCLK | O | LED clock output for the jig |
| 88 | LEDLAT | O | LED latch signal output for the jig |
| 89, 90 | NC | O | Not used. (Open) |
| 91 | $\overline{\text{BUSON}}$ | I | Sony-Bus BUS ON signal input from the bus interface |
| 92 | $\overline{\text{BUCHK}}$ | I | Back up power supply detection signal input |
| 93 | A-ATT | O | Audio muting control signal output |
| 94 | CDON | O | Power control signal output for the CD servo “H”: servo on, “L”: during loading |
| 95 | NC | O | Not used. (Open) |
| 96 | U/J_SEL | I | Destination setting pin |
| 97 | $\overline{\text{TEXTSEL}}$ | I | CD text function setting pin |
| 98 | NC | O | Not used. (Open) |
| 99 | $\overline{\text{CFSEL}}$ | I | Custom file function setting pin |
| 100 | DOUT SEL | I | Digital output selection setting pin “H”: digital output available |

**• IC5 CXD9684R-005 (DSP) (SERVO Board (1/2))**

| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 1 | /RESET | I | Reset input pin "L": reset |
| 2 | MIMD | I | Microcomputer interface mode selection input "H": I2C, "L": TSB |
| 3, 4 | AD0, AD1 | O | External SRAM address signal output |
| 5 | MIDIO (I2C_SDA) | I/O | Serial data input/output |
| 6 | MICK (I2C_SCL) | I | Serial clock input |
| 7 | AD2 | O | External SRAM address signal output |
| 8 | VDDT (3.3V) | — | Power supply (3.3 V) for digital circuit |
| 9 | SDO | O | Data output |
| 10, 11 | AD3, AD4 | O | External SRAM address signal output |
| 12 | SDI0 | I | Data input 0 |
| 13 | BCKIA | I | Bit clock input A |
| 14 | LRCKIA | I | LR clock input A |
| 15 | AD5 | O | External SRAM address signal output |
| 16 | CE | O | External SRAM chip enable signal output |
| 17 | OE | O | External SRAM output enable signal output |
| 18 | VDD (2.5V) | — | Power supply pin (2.5 V) for digital circuit |
| 19 | STANDBY | I | Standby mode control signal input "H": STB, "L": normal |
| 20 | VSS (2.5VGND) | — | Ground pin for digital circuit |
| 21 | VSSL (2.5VGND) | — | Ground pin for DAC Lch |
| 22 | VRAL | — | Reference voltage pin for DAC Lch |
| 23 | LO | O | DAC Lch signal output (Open) |
| 24 | VDAL (2.5V) | — | Power supply pin (2.5 V) for DAC Lch |
| 25 | VDAR (2.5V) | — | Power supply pin (2.5 V) for DAC Rch |
| 26 | RO | O | DAC Rch signal output (Open) |
| 27 | VRAR | — | Reference voltage pin for DAC Rch |
| 28 | VSSR (2.5VGND) | — | Ground pin for DAC Rch |
| 29 | TESTP | I | Pin for test "H": test mode, "L": normal (fixed at "L") |
| 30 | CKS | I | VCO selection input "H": VCO, "L": X1 input |
| 31 – 34 | AD12 to AD9 | O | External SRAM address signal output |
| 35 | VDDT (3.3V) | — | Power supply pin (3.3 V) for digital circuit |
| 36 – 38 | AD8 to AD6 | O | External SRAM address signal output |
| 39 | REQ | O | Interrupt request signal output to the CD master control |
| 40 | VSS | — | Ground pin for digital circuit |
| 41, 42 | AD13, AD14 | O | External SRAM address signal output |
| 43 | WR | O | External SRAM write signal output |
| 44, 45 | AD16, AD15 | O | External SRAM address signal output |
| 46, 47 | IO0, IO1 | I/O | External SRAM data input/output |
| 48 | VSS | — | Ground pin for digital circuit |
| 49 – 51 | IO2 to IO4 | I/O | External SRAM data input/output |
| 52 | VDD (2.5V) | — | Power supply pin (2.5 V) for digital circuit |
| 53 – 55 | IO5 to IO7 | I/O | External SRAM data input/output |
| 56 | VSSP | — | Ground pin for VCO circuit |
| 57 | PDO | O | PLL phase error detection signal output |
| 58 | VCOI | I | VCO control voltage input |
| 59 | VDDP | — | Power supply pin for VCO circuit |
| 60 | XRDE | I/O | External clock input, audio clock output Not used. (Open) |
| 61 | VDDX (2.5V) | — | Power supply pin for oscillation circuit |
| 62 | XI | I | Resonator pin |
| 63 | XO | O | Resonator pin |
| 64 | VSSX | — | Ground pin for oscillation circuit |

**• IC303 M30626FHPGP-054 (SYSTEM CONTROL) (MAIN Board (2/2))**

| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 1 | SIRCS | I | Remote control data input |
| 2 | FP CTRL | O | Front panel open/close speed control signal |
| 3 | CD SO/TSO | O | CD servo serial data output |
| 4 | CD SI/TSI | I | CD servo serial data input Not used. (Open) |
| 5 | CD CKO/TCKO | O | CD servo serial clock output Not used. (Open) |
| 6 | BYTE | I | L fixed terminal |
| 7 | CNVSS | I | Flash write-in signal input |
| 8 | XIN | I | Sub clock signal input (32kHz) |
| 9 | XOUT | O | Sub clock signal output (32kHz) |
| 10 | RESET | I | CPU reset signal input |
| 11 | OSC OUT | O | Main clock signal output (6MHz) |
| 12 | VSS | — | Ground |
| 13 | OSC IN | I | Main clock signal input (6MHz) |
| 14 | VCC1 | — | Power supply pin (+5V) |
| 15 | NMI | I | Non maskable interrupt signal input |
| 16 | CD PACK | I | CD text pack synchronized signal input |
| 17 | DAVN | I | RDS data acquisition detect signal |
| 18 | BU IN | I | Back-up power detect signal |
| 19 | NS MASK | O | Noise mask signal output |
| 20 | BEEP | O | Beep signal output |
| 21 | FLW IN | I | OSC frequency shift signal for DC/DC conv. Not used. (Open) |
| 22 | NCO | O | Not used. (Open) |
| 23 | SA CLK | O | Spectrum analyzer clock signal output |
| 24 | TEL ATT | I | telephone mute detect signal input |
| 25 | ATT | O | Mute signal output |
| 26 | VOL ATT | O | Electronic volume mute signal output |
| 27 | I2C CKO | O | Tuner/E-volume BUS clock output |
| 28 | I2C SIO | O | Tuner/E-volume BUS data output |
| 29 | UNI SO | O | SONY BUS data output |
| 30 | UNI SI | I | SONY BUS data input |
| 31 | UNI CKO | O | SONY BUS clock output |
| 32 | TUNER ATT | O | Tuner attenuate signal output |
| 33 | EESIO | I/O | EEPROM data input/output |
| 34 | EECKO | O | EEPROM clock output |
| 35 | NCO | O | Not used. (Open) |
| 36 | ADSO1 | O | Not used. (Open) |
| 37 | ADSO2 | O | Not used. (Open) |
| 38 | NCO | O | Not used. (Open) |
| 39 | HOLD | I | Flash write-in signal input |
| 40 | AMP DIAG | I | Amplifier diagnosis signal input |
| 41 | AMP STB | O | Amplifier strobe signal output |
| 42 | AMP ON | O | Not used. (Open) |
| 43 | TUNER ON | O | Not used. (Open) |
| 44 | WRI/WR | I | Flash write-in signal input |
| 45 | CD LIMIT | I | CD limit detect signal input Not used. (Open) |
| 46 | CD D SW | I | CD disc SW detect signal input Not used. (Open) |
| 47 | CD PH1 | I | CD PH1 detect signal input |
| 48 | CD INSW/PH2 | I | CD IN SW/PH2 detect signal input Not used. (Open) |
| 49 | PH3 | I | CD PH3 detect signal input Not used. (Open) |
| 50 | DST SEL1 | I | Destination select signal input |
| 51 | DST SEL2 | I | Destination select signal input Not used. (Open) |
| 52 | CD LM LO | O | CD loading motor control signal output Not used. (Open) |

| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 53 | CD LM EJ | O | CD eject motor control signal output Not used. (Open) |
| 54 | CD RST | O | CD servo reset signal output |
| 55 | CD AO | O | CD servo command/parameter discri. output Not used. (Open) |
| 56 | CD STB | O | CD servo data strobe signal output Not used. (Open) |
| 57 | CD TSTB | O | CD servo text strobe signal output Not used. (Open) |
| 58 | CD RFOK | I | CD servo RFOK signal input |
| 59 | CD XTALEN | O | CD servo crystal OSC control signal output Not used. (Open) |
| 60 | VCC2 | — | Power supply pin (+5V) |
| 61 | RESET OUT | O | Display CPU reset signal output |
| 62 | VSS | — | Ground |
| 63 | TEST IN | I | Test mode setting detect signal input |
| 64 | BUS ON | O | BUS ON control signal output |
| 65 | SYS RST | O | System reset signal output |
| 66 | BUS/AUX | O | BUS/AUX select control signal output |
| 67 | LINK OFF | O | Link OFF control signal output |
| 68 | ACC IN | I | Accessory key ON detect signal input |
| 69 | ILL IN | I | Ilumination line detect signal input |
| 70 | RC IN1 | I | Rotary commander signal input 1 |
| 71 | NCO | O | Not used. (Open) |
| 72 | CD SELF SW | I | CD self SW detect signal input |
| 73 | TU ATT IN | I | Tuner mute control signal input |
| 74 | CLOSE SW | I | Front panel close detect signal input |
| 75 | OPEN SW | I | Front panel open detect signal input |
| 76 | I-DET | I | Front panel current detect signal input |
| 77 | MOT– | O | Front panel open/close control signal output |
| 78 | MOT+ | O | Front panel open/close control signal output |
| 79 | ROMC EN | I | ROM correction enable signal input |
| 80 | QUALITY | I | Tuner noise detect signal input |
| 81 | MPTH | I | Tuner multi-path signal input |
| 82 | VSM | I | S-meter signal input |
| 83 | SA IN | I | SA data input |
| 84 | KEY IN1 | I | Key signal input 1 |
| 85 | KEY IN0 | I | Key signal input 0 |
| 86 | RC IN0 | I | Rotary commander signal input 0 |
| 87 | KEY ACK2 | I | Key acknowledge detect signal input 2 |
| 88 | KEY ACK0 | I | Key acknowledge detect signal input 0 |
| 89 | KEY ACK1 | I | Key acknowledge detect signal input 1 |
| 90 | OPEN KEY | I | Open key detect signal input |
| 91 | RAM BU | I | RAM reset detect signal input |
| 92 | FLD ON | O | FL driver power supply ON/OFF signal output |
| 93 | FL ON | O | FL power supply ON/OFF signal |
| 94 | AVSS | — | Ground |
| 95 | DISP CE | O | Display CPU chip enable output |
| 96 | VREF | — | A/D converter reference voltage (+5V) |
| 97 | AVCC | — | Power supply pin (+5V) |
| 98 | DISP SI/RX | I | Display CPU BUS data input |
| 99 | DISP SO/TX | O | Display CPU BUS data output |
| 100 | DISP CKO | O | Display CPU BUS clock output |

**• IC2 M30833FJGP-073 (DISPLAY SYSTEM CONTROL) (DISPLAY Board)**

| Pin No. | Pin Name | I/O | Pin Description |
|---|---|---|---|
| 1 | SYS CE | I | Main chip enable input |
| 2 | NC | I | Not used. (Open) |
| 3 | FL DAT3 | O | FL serial data output |
| 4 | NC | O | Not used. (Open) |
| 5 | FL CLK IN | I | FL serial clock input |
| 6 | BYTE | I | L fixed terminal |
| 7 | CNVSS | I | Flash write-in signal input |
| 8 | NC | O | Not used. (Open) |
| 9 | NC | O | Not used. (Open) |
| 10 | RESET | I | CPU reset signal input |
| 11 | XOUT | O | Main clock signal output (30MHz) |
| 12 | VSS | — | Ground |
| 13 | XIN | I | Main clock signal input (30MHz) |
| 14 | VCC | — | Power supply pin (+5V) |
| 15 | NMI | I | Non maskable interrupt signal input |
| 16 | NC | O | Not used. (Open) |
| 17 | NC | O | Connecting to pin 20. |
| 18 | NC | O | Not used. (Open) |
| 19 | NC | O | Not used. (Open) |
| 20 | NC | O | Connecting to pin 17. |
| 21 | LAT | O | FL data LAT output |
| 22 | BK | O | FL BK output |
| 23 | GCP2 | O | FL GCP2 outpit |
| 24 | NC | O | Not used. (Open) |
| 25 | GCP1 | O | FL GCP1 output |
| 26 | NC | O | Not used. (Open) |
| 27 | GCP4 | O | FL GCP4 output |
| 28 | GCP3 | O | FL GCP3 output |
| 29 | SYS SO | O | Main BUS data output |
| 30 | SYS SI | I | CPU BUS data input |
| 31 | SYS CLK | O | Main BUS clock input |
| 32 | NC | O | Not used. (Open) |
| 33 | FL DAT1 | O | FL serial data output |
| 34 | NC | O | Not used. (Open) |
| 35 | FL CLK | O | FL serial clock output |
| 36 | LCD CE | O | LCD driver chip enble output |
| 37 | LCD INH | O | LCD driver inhibit output |
| 38 | NC | O | Not used. (Open) |
| 39 | HOLD | I | Flash write-in signal input |
| 40 – 43 | NC | O | Not used. (Open) |
| 44 | WRI/WR | I | Flash write-in signal input |
| 45 – 59 | NC | O | Not used. (Open) |
| 60 | VCC | O | Power supply pin (+5V) |
| 61 | NC | O | Not used. (Open) |
| 62 | VSS | O | Ground |
| 63 – 93 | NC | O | Not used. (Open) |
| 94 | AVSS | — | Ground |
| 95 | NC | O | Not used. (Open) |
| 96 | VREF | — | Power supply pin (+5V) |
| 97 | AVCC | — | Power supply pin (+5V) |
| 98 | RXD1 | — | Not used. (Open) |
| 99 | FL DAT2 | O | FL serial data output |
| 100 | FL CLK IN | I | FL serial clock input |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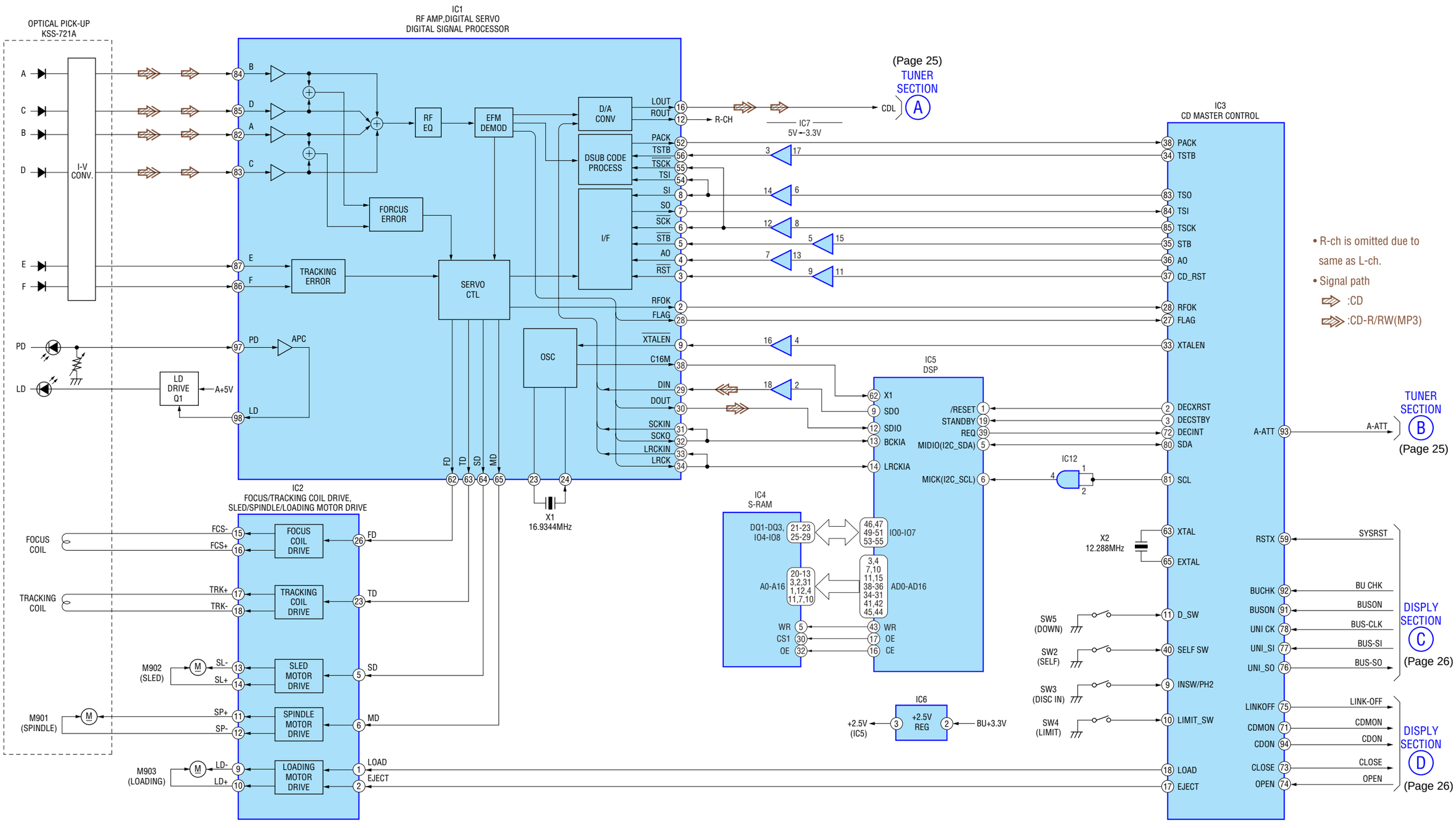
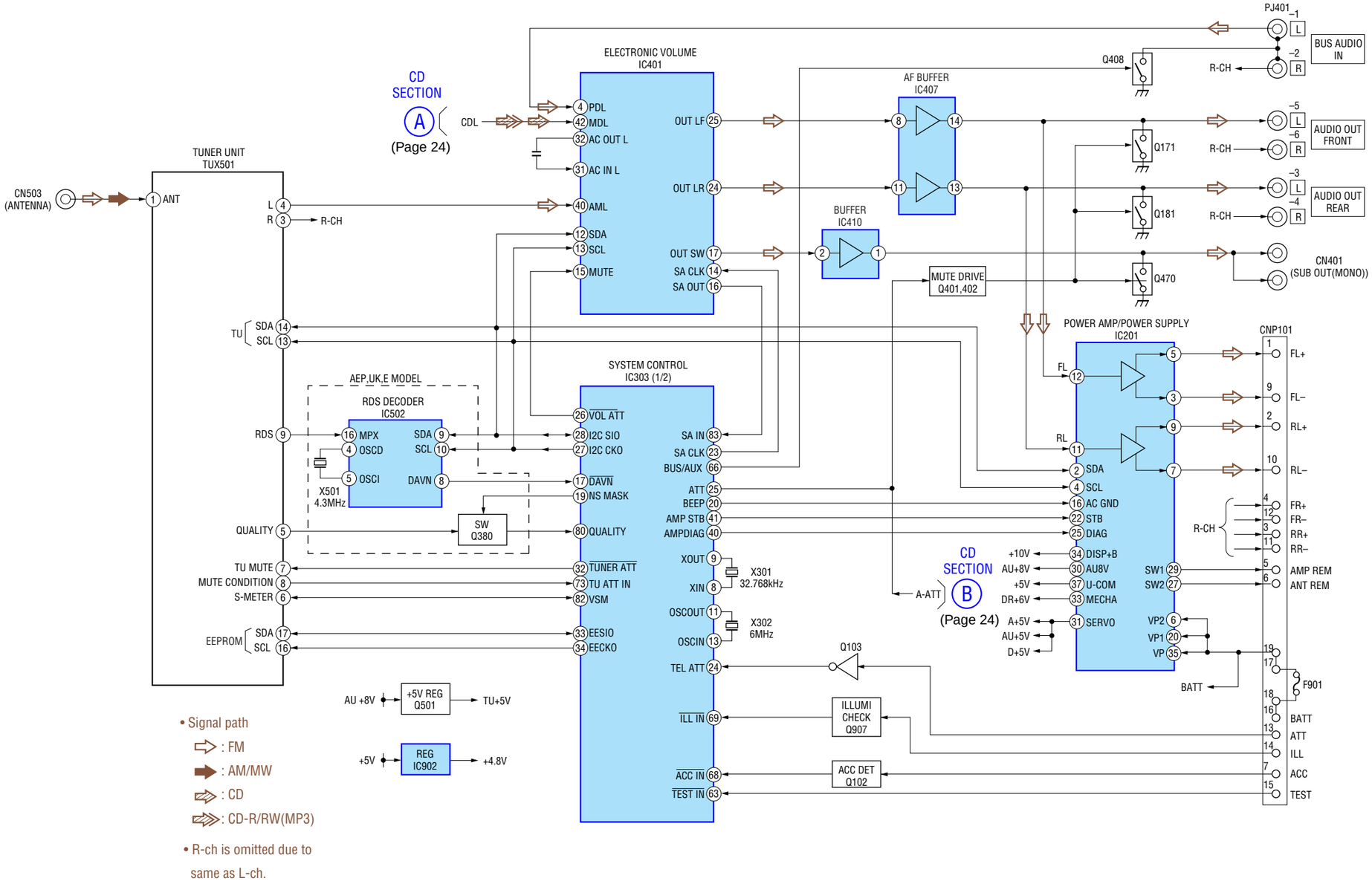
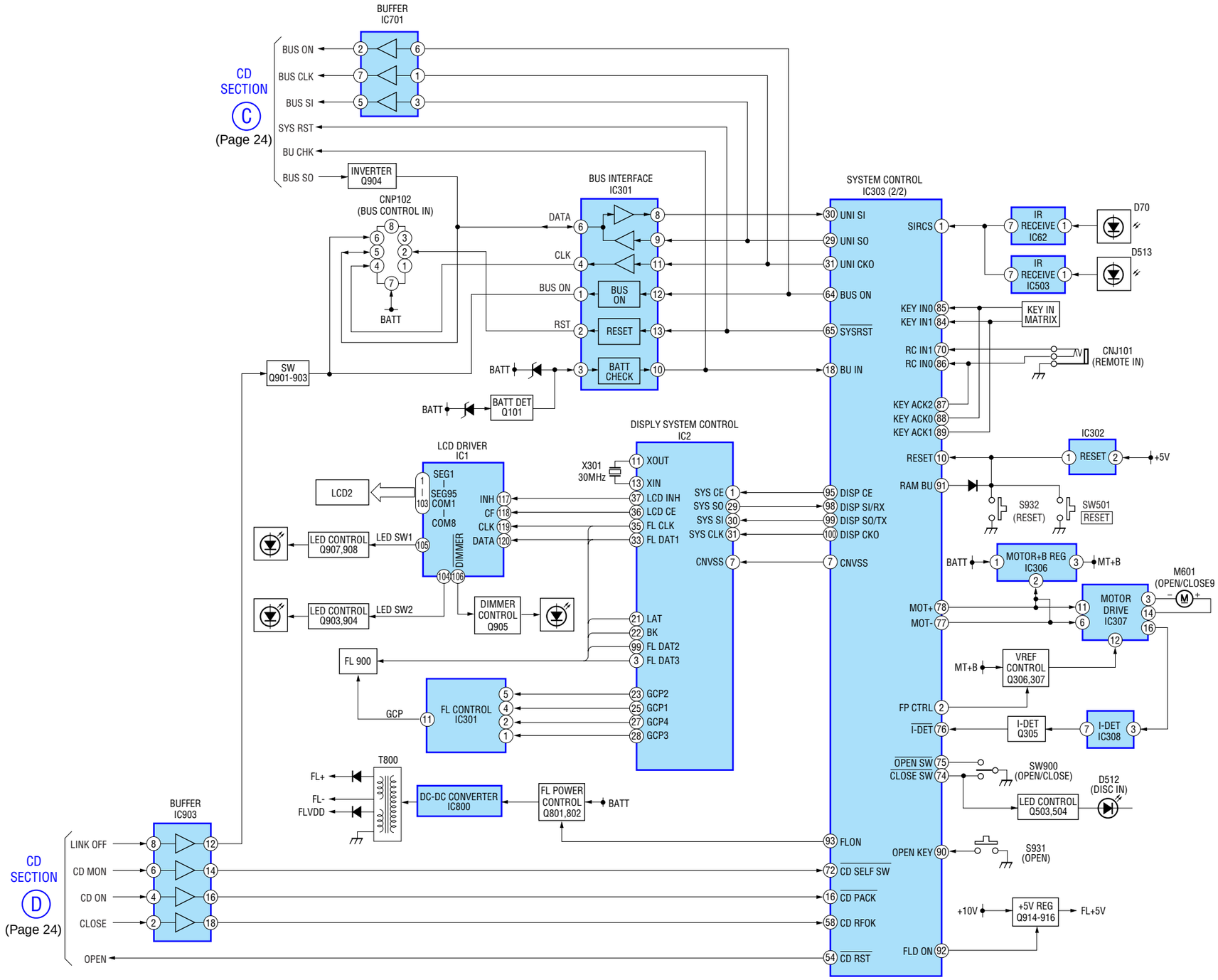
## 4-2. BLOCK DIAGRAM — CD SECTION —



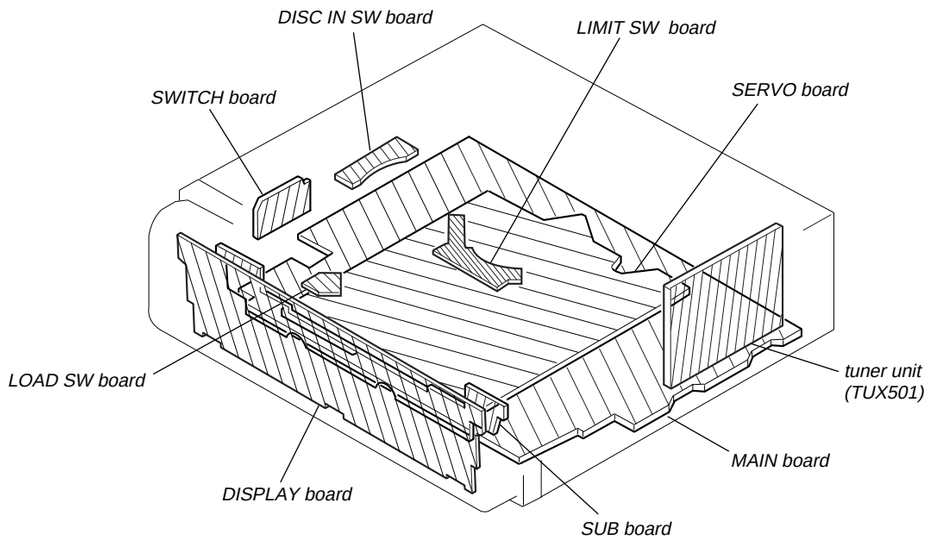
## 4-3. BLOCK DIAGRAM — TUNER SECTION —



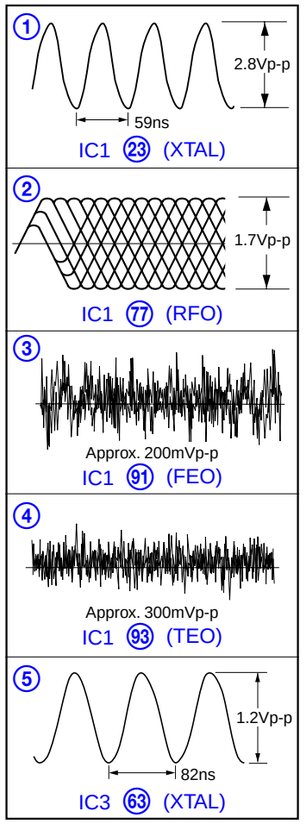
## 4-4. BLOCK DIAGRAM — DISPLAY SECTION —



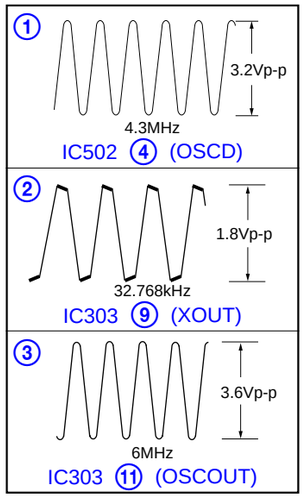
## 4-5. CIRCUIT BOARDS LOCATION



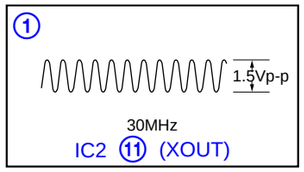

**• Waveforms**
**— SERVO Board —**
(MODE: CD PLAY)




**• Waveforms**
**— MAIN Board —**
(MODE: FM)




**• Waveform**
**— DISPLAY Board —**
(MODE: FM)




**THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.**
**(In addition to this, the necessary note is printed in each block.)**

**for schematic diagram:**

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- ⚠ : internal component.
- ▭ : panel designation.

| **Note:** | **Note:** |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié. |

- ▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⇨ : FM
  - ➡ : AM/MW/LW
  - ⇨ : CD
  - ⇨ : CD-R/RW (MP3)
- Abbreviation
  CND : Canadian model

**for printed wiring boards:**

- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.

- Abbreviation
  CND : Canadian model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**4-6. PRINTED WIRING BOARDS — CD MECHANISM SECTION — • Refer to page 27 for Circuit Boards Location.**

14 13 12 11 10 9 8 7 6 5 4 3 2 1

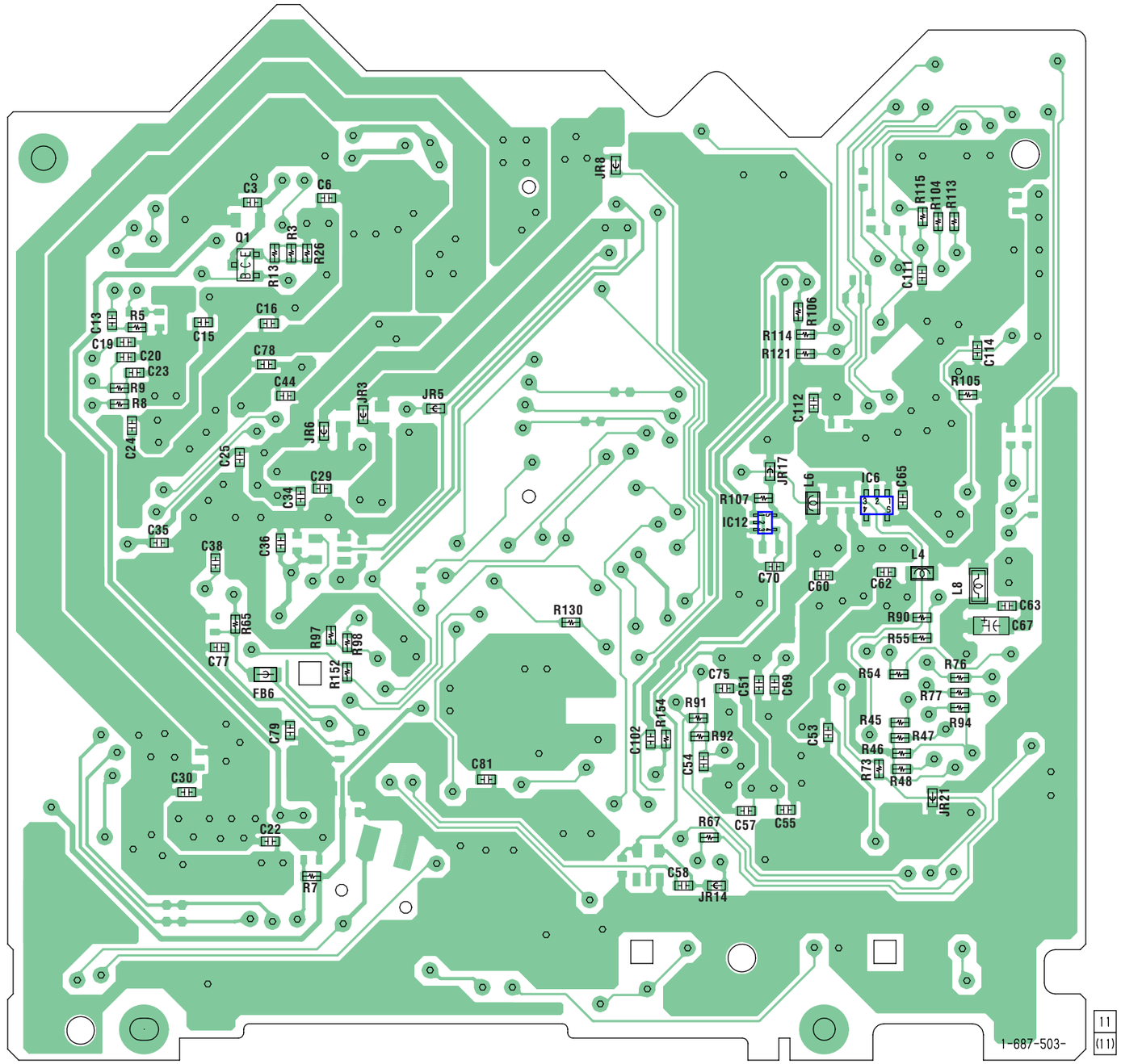
A B C D E F G H I

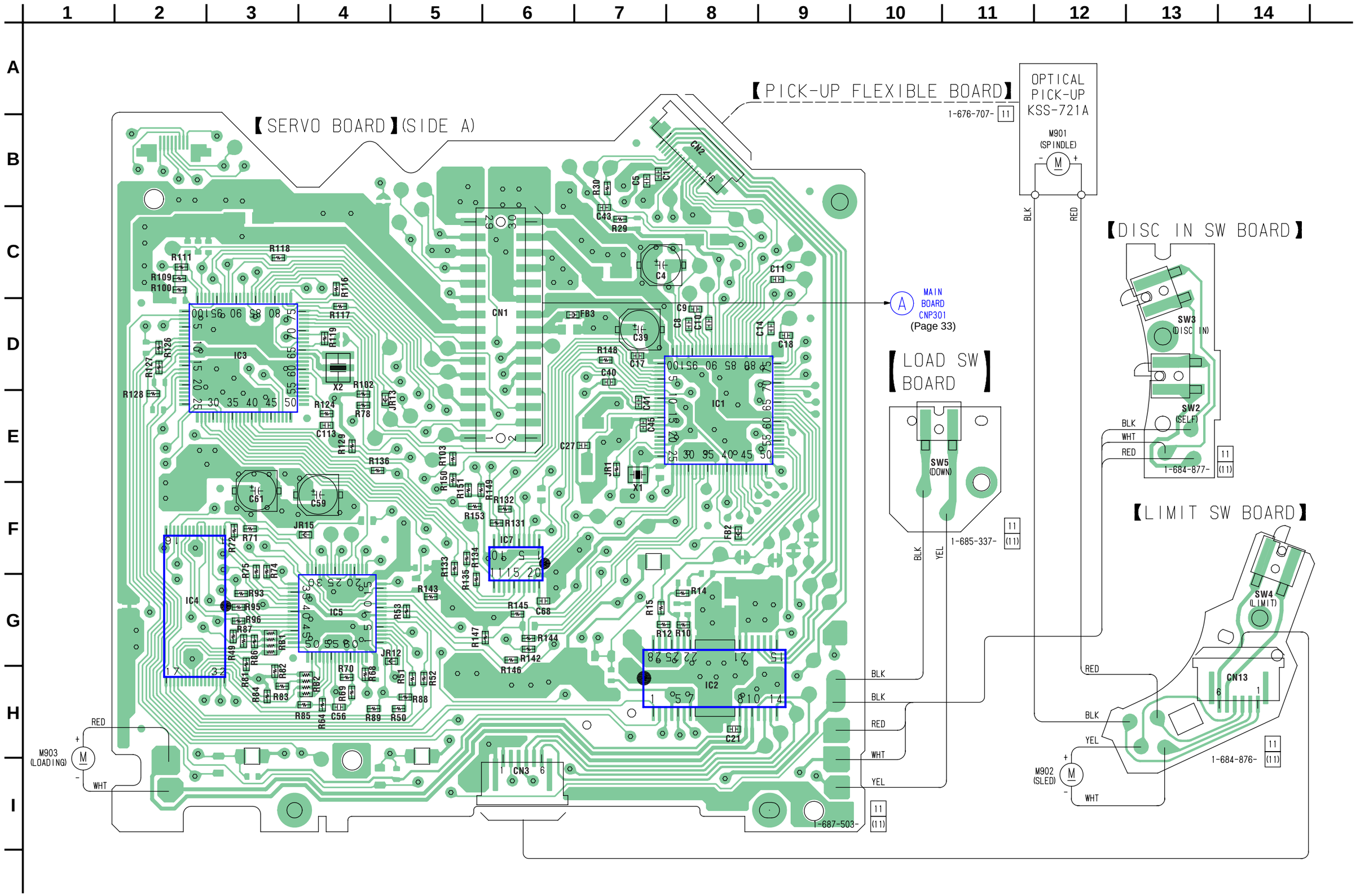
**• Semiconductor Location**

| Ref. No. | Location |
|---|---|
| IC1 | E-8 |
| IC2 | H-8 |
| IC3 | D-3 |
| IC4 | G-2 |
| IC5 | G-4 |
| (IC6) | E-3 |
| IC7 | F-6 |
| (IC12) | E-4 |
| (Q1) | C-8 |

( ): SIDE B

【SERVO BOARD】(SIDE B)



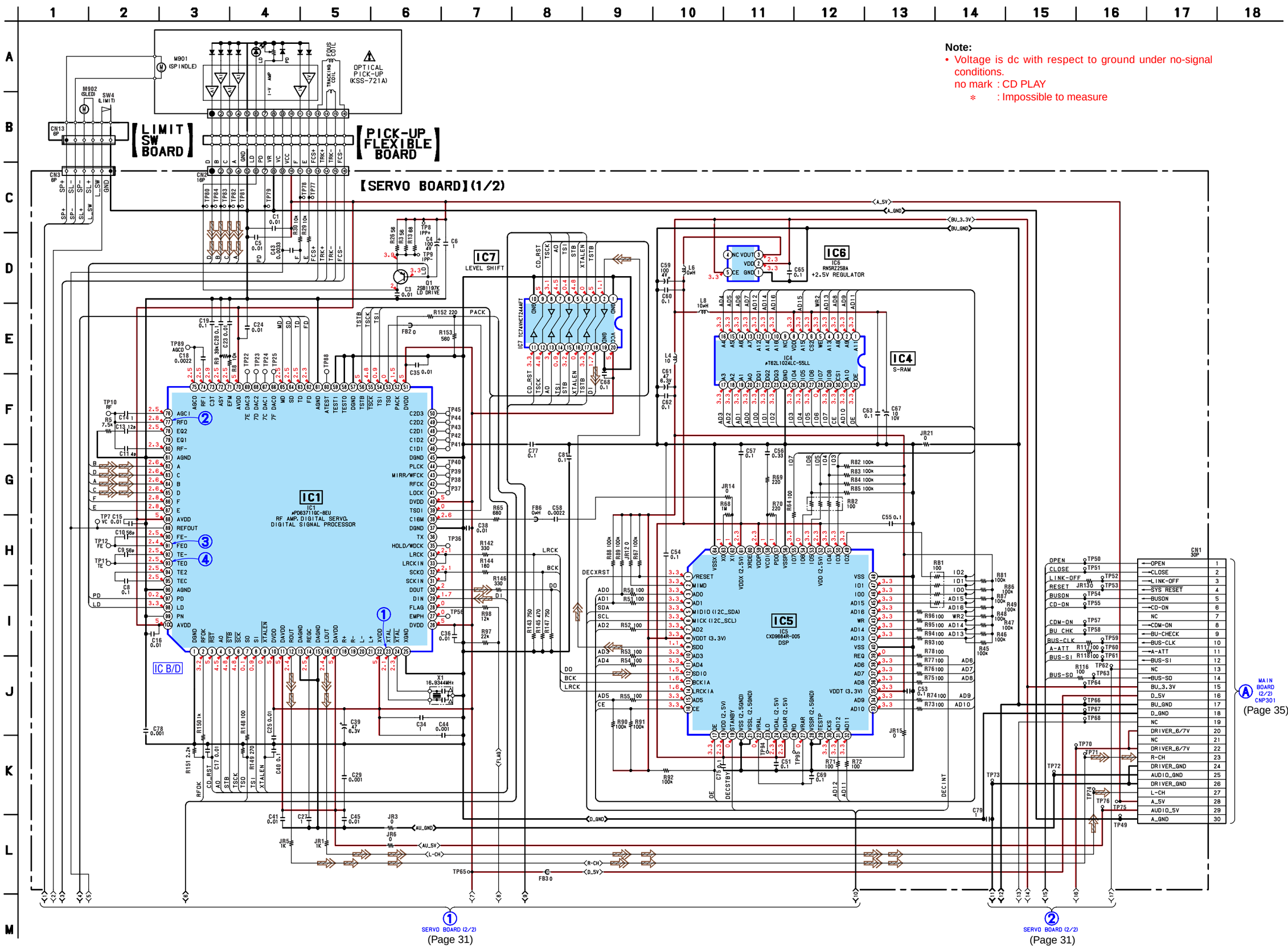

【SERVO BOARD】(SIDE A)
【PICK-UP FLEXIBLE BOARD】
1-676-707-11
OPTICAL PICK-UP KSS-721A
M901 (SPINDLE)
BLK
RED
【DISC IN SW BOARD】
SW3 (DISC IN)
SW2 (SELF)
BLK
WHT
RED
1-684-877-11 (11)
A MAIN BOARD CNP301 (Page 33)
【LOAD SW BOARD】
SW5 (DOWN)
1-685-337-11 (11)
【LIMIT SW BOARD】
SW4 (LIMIT)
CN13
1-684-876-11 (11)
M902 (SLED)
M903 (LOADING)
CN1
CN2
CN3
IC1
IC2
IC3
IC4
IC5
IC7
X1
X2
FB2
FB3
BLK
YEL
WHT
RED
1-687-503-11 (11)

• Refer to page 27 for Waveforms.

## 4-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) —

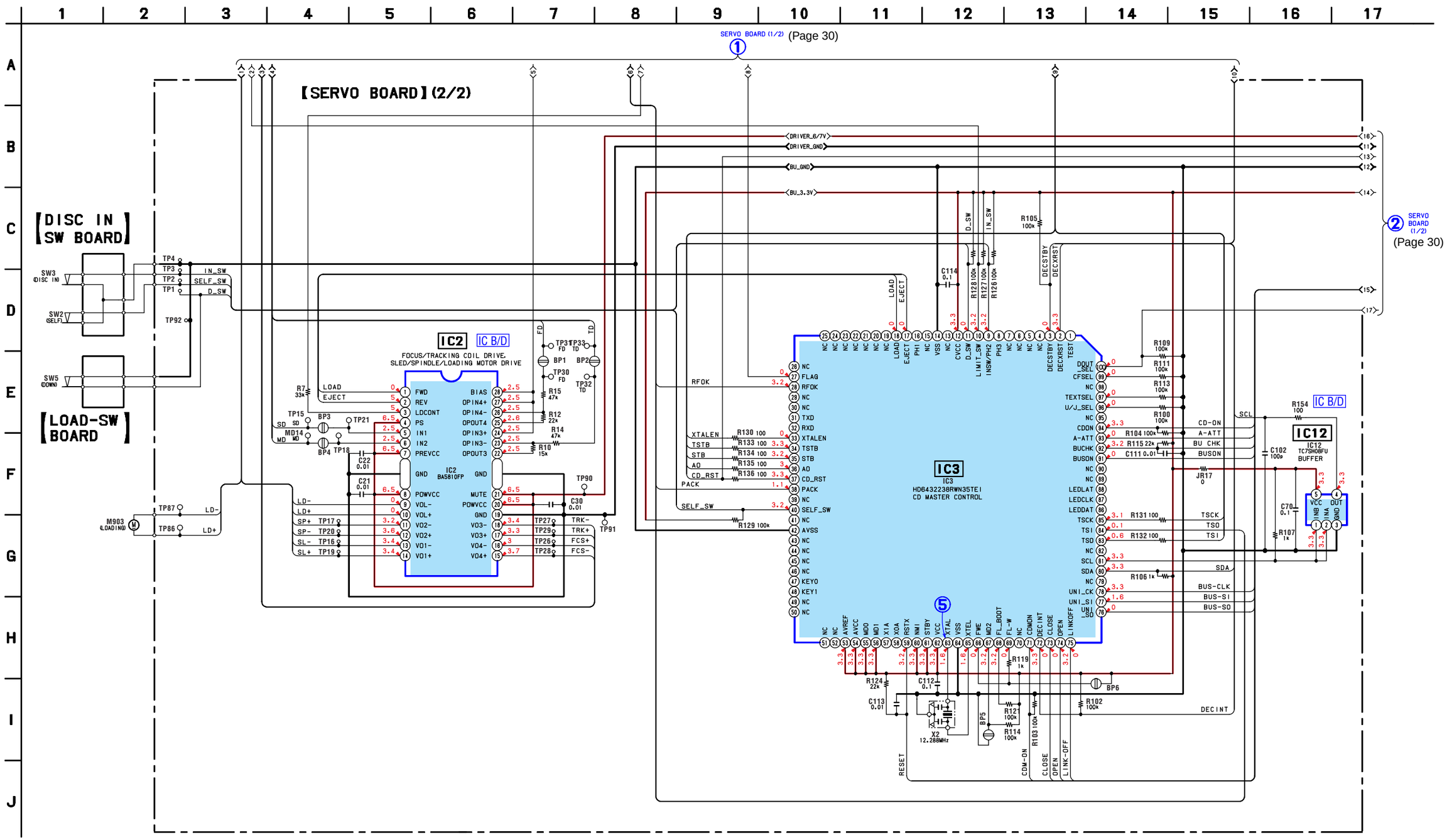
• Refer to page 40 for IC Block Diagram.

**Note:**
- Voltage is dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
  ✻ : Impossible to measure



## 4-8. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) —

• Refer to page 27 for Waveform.
• Refer to page 40 for IC Block Diagrams.




**Note:**

- Voltage is dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
  ＊ : Impossible to measure

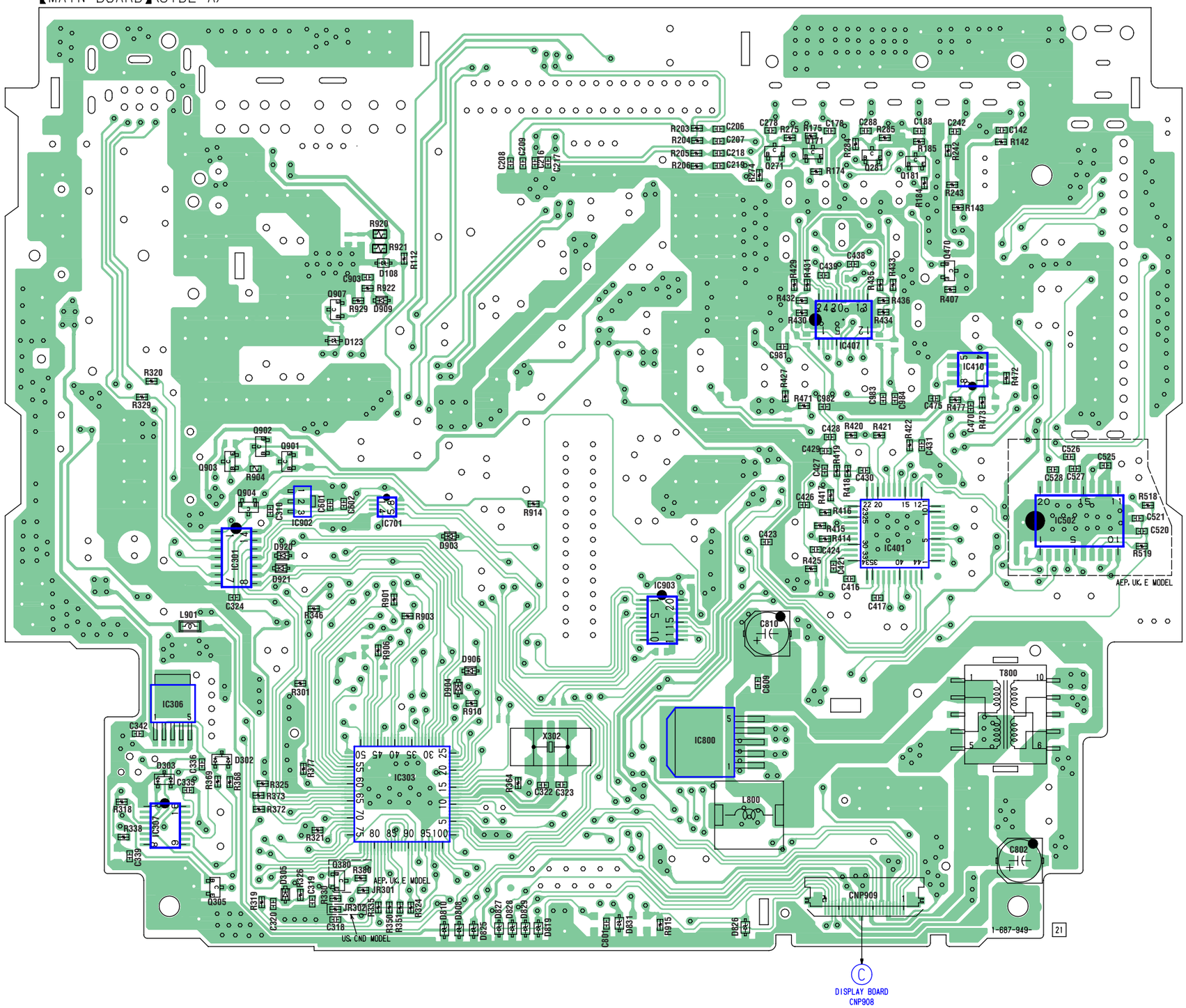
## 4-9. PRINTED WIRING BOARDS — MAIN SECTION — • Refer to page 27 for Circuit Boards Location.

• **Semiconductor Location**

| Ref. No. | Location | Ref. No. | Location |
|---|---|---|---|
| (D101) | E-10 | (D905) | F-10 |
| (D102) | E-10 | D906 | G-7 |
| (D103) | E-10 | (D907) | I-9 |
| (D104) | E-11 | D909 | D-8 |
| (D105) | E-10 | D920 | F-9 |
| (D106) | C-9 | D921 | G-9 |
| D108 | D-8 | | |
| (D109) | D-10 | (IC201) | B-6 |
| (D110) | B-8 | IC301 | F-9 |
| (D111) | D-8 | (IC302) | H-9 |
| (D112) | B-8 | IC303 | H-8 |
| (D113) | C-8 | IC306 | H-10 |
| (D114) | C-8 | IC307 | I-10 |
| (D115) | C-8 | (IC308) | I-10 |
| (D116) | C-9 | IC401 | F-3 |
| (D117) | C-9 | IC407 | D-4 |
| (D118) | E-9 | IC410 | E-3 |
| (D119) | E-9 | IC502 | F-2 |
| (D120) | E-9 | IC701 | F-8 |
| (D121) | E-9 | IC800 | H-5 |
| (D122) | B-3 | IC902 | F-9 |
| D123 | E-9 | IC903 | G-6 |
| D302 | H-9 | | |
| D303 | H-10 | (Q101) | E-10 |
| D305 | I-9 | (Q102) | F-10 |
| (D401) | E-6 | (Q103) | F-9 |
| (D403) | F-5 | Q171 | C-4 |
| (D501) | E-2 | Q181 | C-3 |
| (D802) | I-3 | Q271 | C-5 |
| (D803) | I-3 | Q281 | C-4 |
| (D804) | H-2 | Q305 | J-9 |
| (D805) | H-2 | (Q306) | H-10 |
| (D806) | H-3 | (Q307) | G-10 |
| D808 | J-7 | Q380 | I-9 |
| D810 | J-8 | (Q401) | F-6 |
| D819 | J-7 | (Q402) | E-5 |
| (D820) | I-4 | (Q408) | E-3 |
| D825 | J-7 | Q470 | D-3 |
| D826 | J-5 | (Q501) | D-2 |
| D827 | J-7 | (Q801) | I-4 |
| D828 | J-7 | (Q802) | I-4 |
| D829 | J-7 | Q901 | F-9 |
| D831 | J-6 | Q902 | E-9 |
| (D832) | I-9 | Q903 | F-9 |
| (D843) | I-4 | Q904 | F-9 |
| (D901) | F-8 | Q907 | D-8 |
| (D902) | F-8 | (Q914) | F-11 |
| D903 | F-8 | (Q915) | F-11 |
| D904 | H-8 | (Q916) | E-11 |

( ): SIDE B

【MAIN BOARD】(SIDE A)



【MAIN BOARD】(SIDE B)

(ANTENNA)
CNJ101 (REMOTE IN)
PJ401
BUS AUDIO IN AUX IN
AUDIO OUT
FRONT
REAR
(SUB OUT (MONO))
WHT BLK RED
CN503
TUX501 (TUNER UNIT)
FB101
FB102
CNP101
CNP102 (BUS CONTROL IN)
IC201
CN904
CN903
CN401
CN601
(TEST TERMINAL)
AEP, UK, E MODEL
US, CND MODEL
CNP902
CNP805
CNP301
TH100
X501
X301
Q801
Q101
Q102
Q103
Q306
Q307
Q915
Q916
SW900
W601 (OPEN/CLOSE)
1-687-949-21

(Page 29)
A SERVO BOARD CN1

【SWITCH BOARD】
CNP902 1 YEL, 2 BLK, 3 BLK, 4 WHT, 5 RED
W601 (OPEN/CLOSE)
OPEN ⟷ CLOSE
SW900 1-677-728-11
SW900 (OPEN/CLOSE)

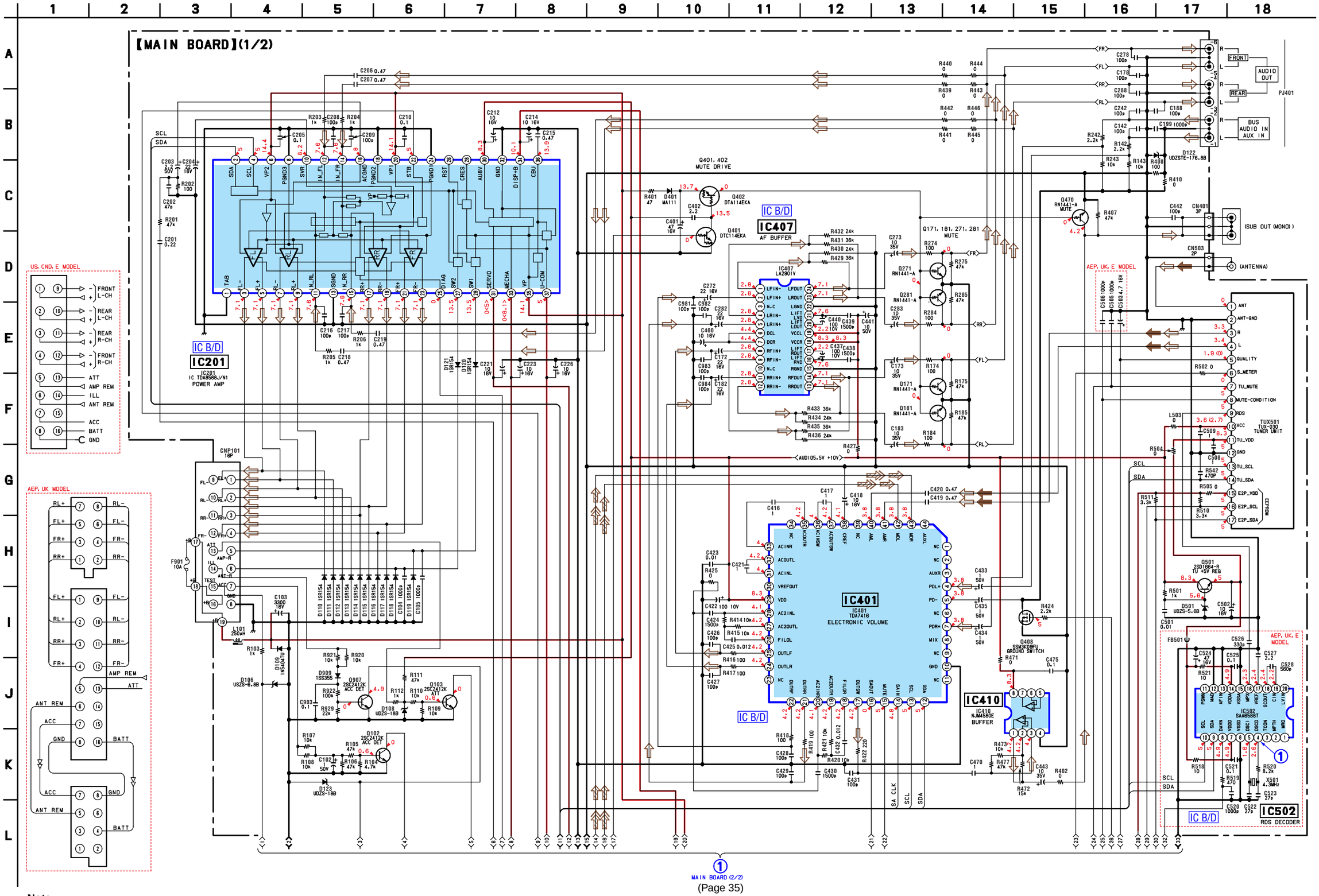
BATT AEP,UK model
TEL MUTE SKY BKU BLK RED BLU BLU/WHT GRY/BLK GRY VIO/BLK VIO GRN/BLK GRN WHT/BLK WHT
ACC ANT REM AMP REM
YEL GRN
R-L R-R F-L F-R

US,CND,E model
GND BATT ACC ANT REM ILL AMP REM ATT SKY BKU
BLK YEL RED BLU ORG/WHT BLU/WHT GRY GRY/BLK VIO VIO/BLK GRN GRN/BLK WHT WHT/BLK
FRONT R-CH (+) FRONT R-CH (-) REAR R-CH (+) REAR R-CH (-) REAR L-CH (+) REAR L-CH (-) FRONT L-CH (+) FRONT L-CH (-)

B SUB BOARD CN501
(Page 36)

## 4-10. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) —

• Refer to page 27 for Waveform.
• Refer to page 40 for IC Block Diagrams.




**Note:**

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM/MW/LW
  < > : CD PLAY

• Refer to page 27 for Waveform.

## 4-11. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) —

• Refer to page 40 for IC Block Diagrams.

【MAIN BOARD】(2/2)

MAIN BOARD (1/2) ① (Page 34)

SERVO BOARD (1/2) CN1 Ⓐ (Page 30)

CNP301 30P

| | | | |
|---|---|---|---|
| 30 | A_GND | AU_5V | 29 |
| 28 | A_5V | AU_LCH | 27 |
| 26 | DR_GND | AU-GND | 25 |
| 24 | DR_GND | AU_RCH | 23 |
| 22 | DR_6V | NC | 21 |
| 20 | DR_6V | NC | 19 |
| 18 | D_GND | BU_GND | 17 |
| 16 | D_5V | BU_3.3V | 15 |
| 14 | BUS_SO | NC | 13 |
| 12 | BUS_SI | A_MUTE | 11 |
| 10 | BUS_CLK | BU_CLK | 9 |
| 8 | CDM_DN | NC | 7 |
| 6 | CD_DN | BUS_DN | 5 |
| 4 | SYS_RST | LINK_OFF | 3 |
| 2 | CLOSE | OPEN | 1 |

IC B/D

IC301 BUS INTERFACE

IC903 TC74VHCT244AFT BUFFER

IC902 +3.3V REG

IC701 BUFFER

IC302 RESET

IC303 M30626FHPGP-054 SYSTEM CONTROL

INTERNAL PULL-UP

IC308 I-DET

IC307 PANEL OP/CL MOTOR DRIVE

IC306 +8V REG

IC800 DC-DC CONVERTER LM2577SX-ADJ

Q801, 802 FL POWER CONTROL

Q914, 916 FL POWER CONTROL

Q903 BUS ON SWITCH

【SWITCH BOARD】

M601 (OPEN/CLOSE)

SW900 (OPEN/CLOSE)

CNP902 5P

CNP805 11P

CNP909 24P

CNP102

CNJ101 (REMOTE IN)

Ⓑ SUB BOARD CNS01 (Page 37)

Ⓒ DISPLAY BOARD CNP908 (Page 39)

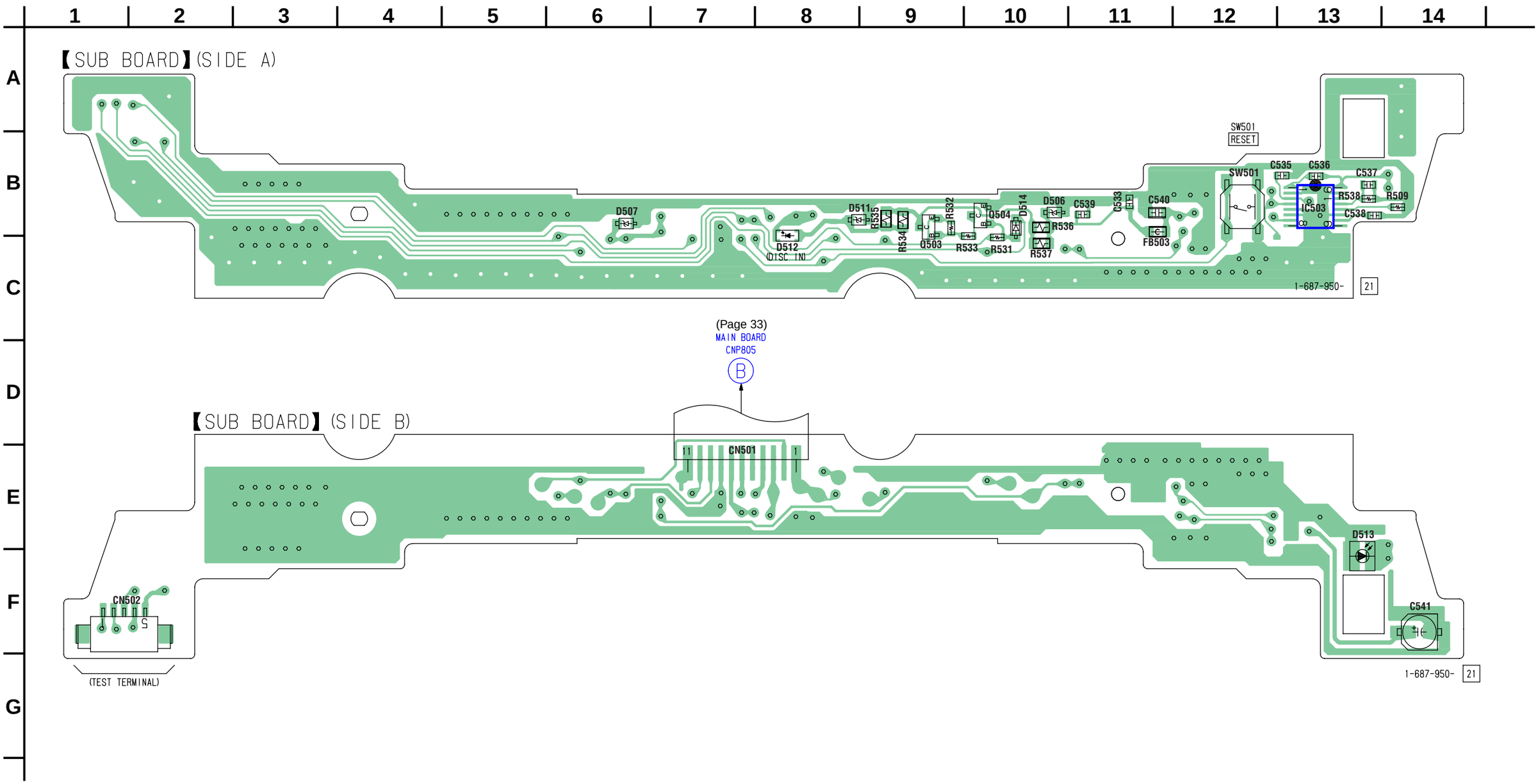
(TEST TERMINAL)

**Note:**

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

( ) : AM/MW/LW
< > : CD PLAY
* : Impossible to measure

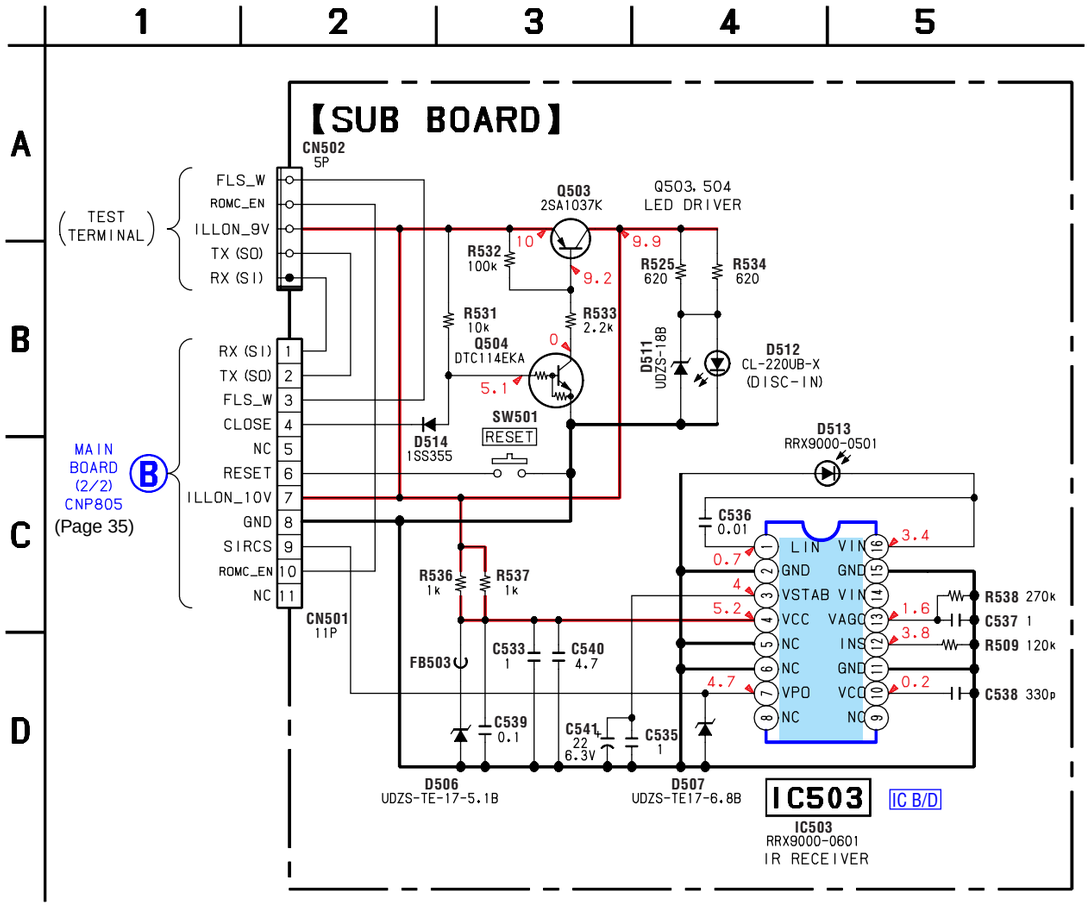
**4-12. PRINTED WIRING BOARD — SUB SECTION — • Refer to page 27 for Circuit Boards Location.**




• **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| D506 | B-10 |
| D507 | B-6 |
| D511 | B-8 |
| D512 | C-8 |
| D513 | E-13 |
| D514 | B-10 |
| IC503 | B-13 |
| Q503 | C-9 |
| Q504 | B-10 |

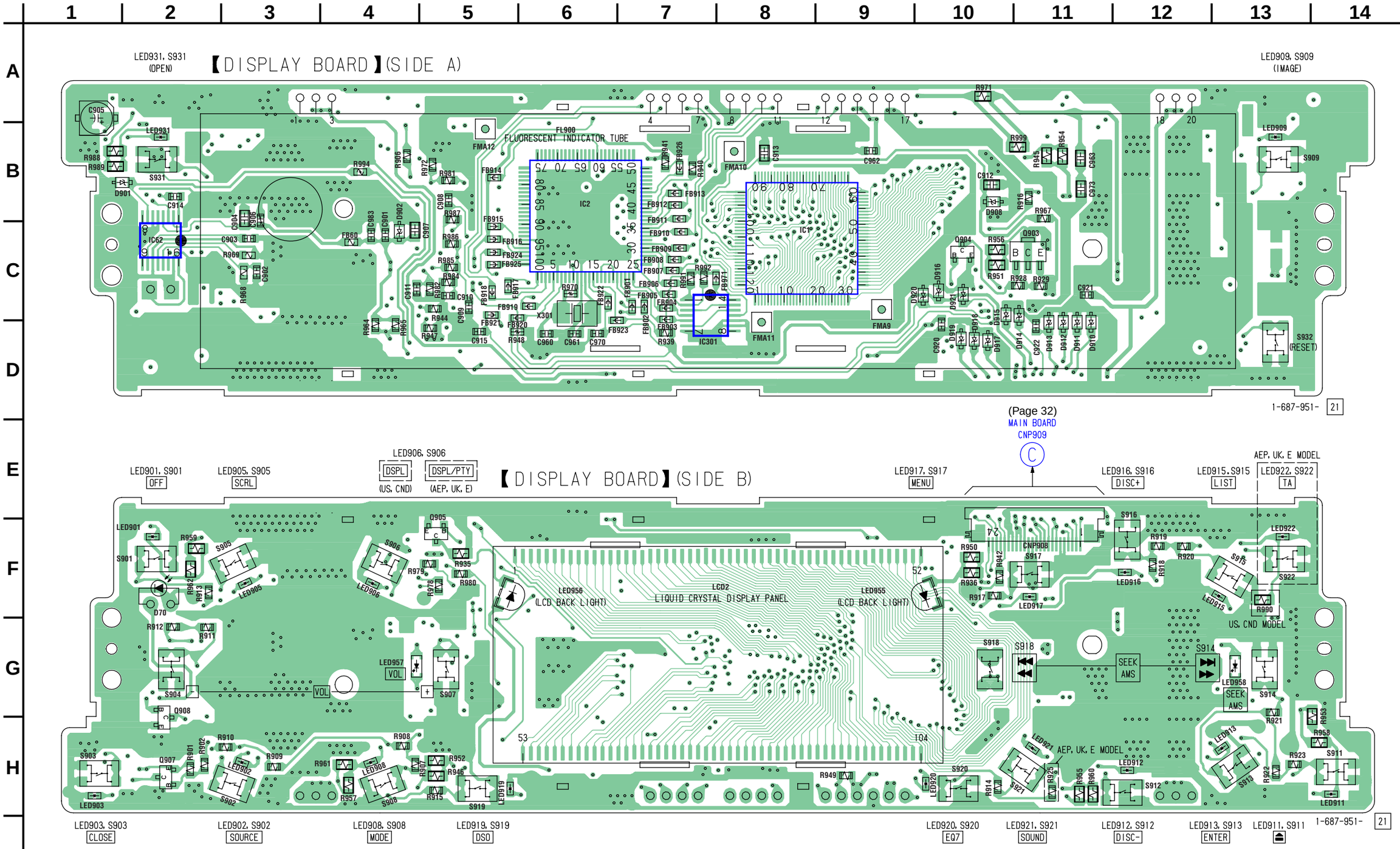
## 4-13. SCHEMATIC DIAGRAM — SUB SECTION — • Refer to page 41 for IC Block Diagrams.




**Note:**

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

## 4-14. PRINTED WIRING BOARD — DISPLAY SECTION — • Refer to page 27 for Circuit Boards Location.

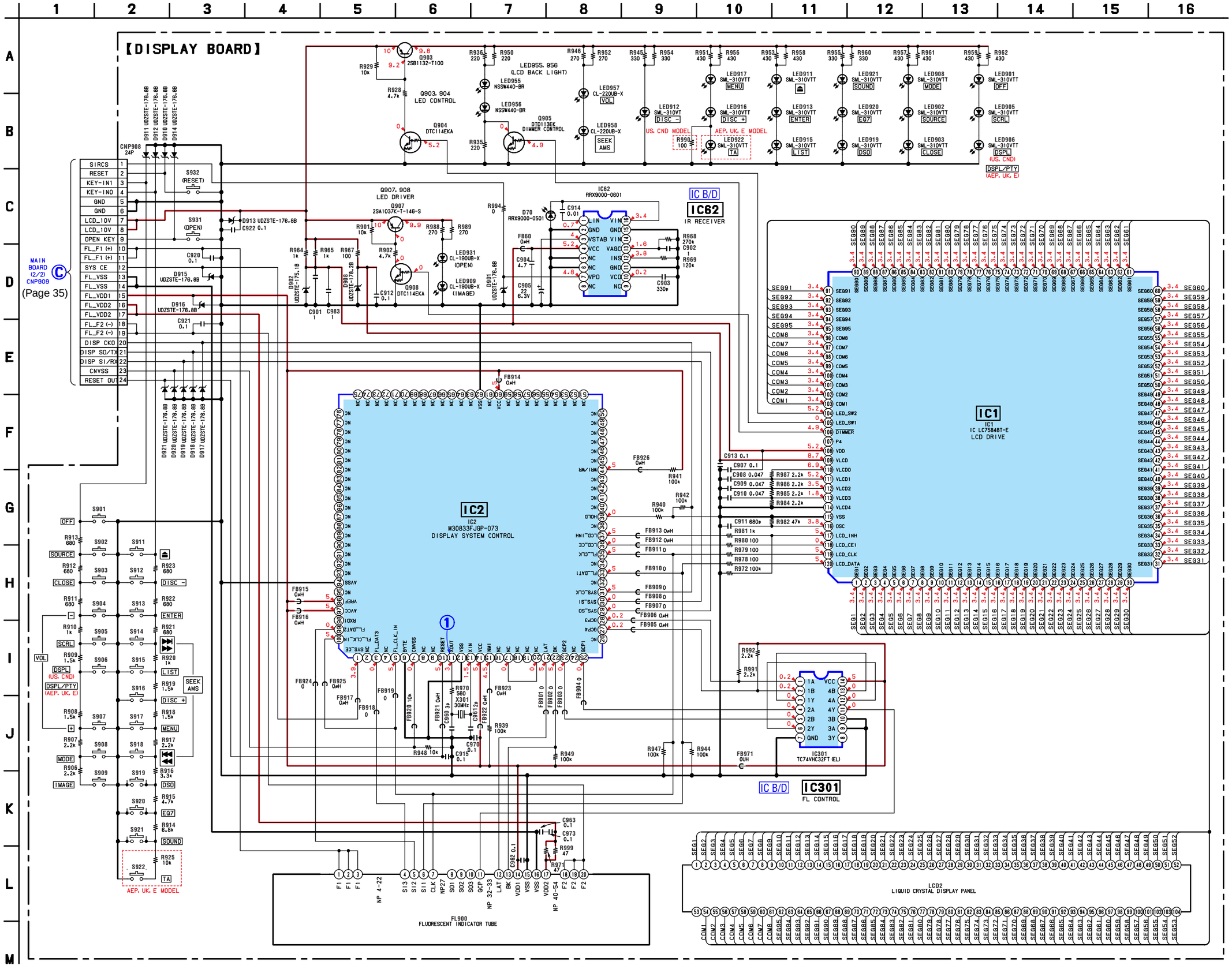



• **Semiconductor Location**

| Ref. No. | Location | Ref. No. | Location | Ref. No. | Location | Ref. No. | Location | Ref. No. | Location |
|---|---|---|---|---|---|---|---|---|---|
| D70 | F-2 | D916 | C-10 | IC301 | C-7 | LED912 | H-12 | LED955 | F-9 |
| D901 | B-1 | D917 | D-10 | | | LED913 | H-13 | LED956 | F-6 |
| D902 | B-4 | D918 | D-10 | LED901 | F-2 | LED915 | F-13 | LED957 | G-4 |
| D908 | B-10 | D919 | D-10 | LED902 | H-3 | LED916 | F-12 | LED958 | G-13 |
| D910 | D-11 | D920 | C-10 | LED903 | H-1 | LED917 | F-11 | | |
| D911 | D-11 | D921 | C-10 | LED905 | F-3 | LED919 | H-5 | Q903 | C-11 |
| D912 | D-11 | | | LED906 | F-4 | LED920 | H-9 | Q904 | C-10 |
| D913 | D-11 | IC1 | C-8 | LED908 | H-4 | LED921 | H-11 | Q905 | F-4 |
| D914 | D-11 | IC2 | B-6 | LED909 | B-13 | LED922 | F-13 | Q907 | H-2 |
| D915 | C-10 | IC62 | C-2 | LED911 | H-14 | LED931 | B-2 | Q908 | G-2 |

## 4-15. SCHEMATIC DIAGRAM — DISPLAY SECTION —

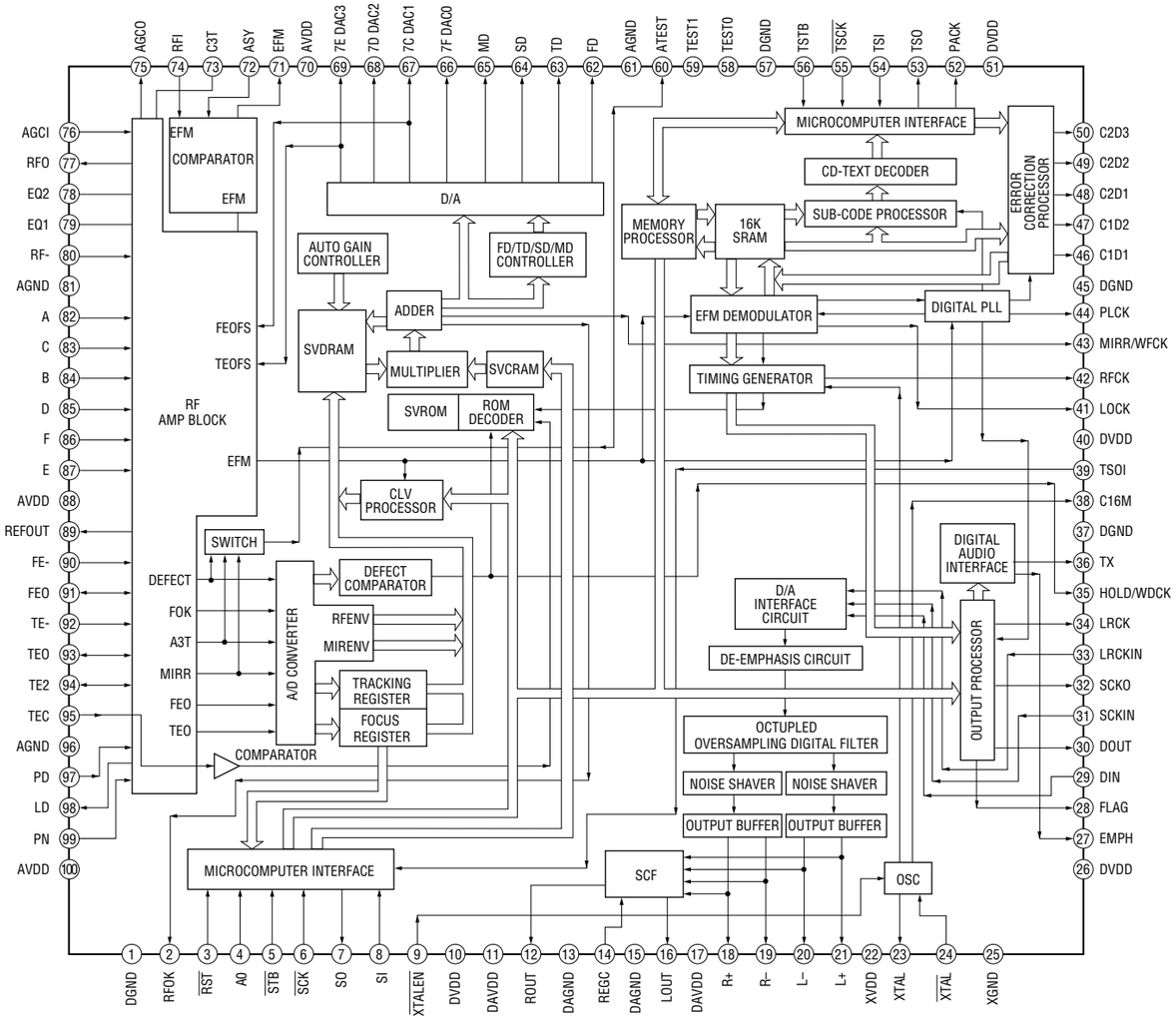
• Refer to page 27 for Waveform.
• Refer to page 41 for IC Block Diagrams.



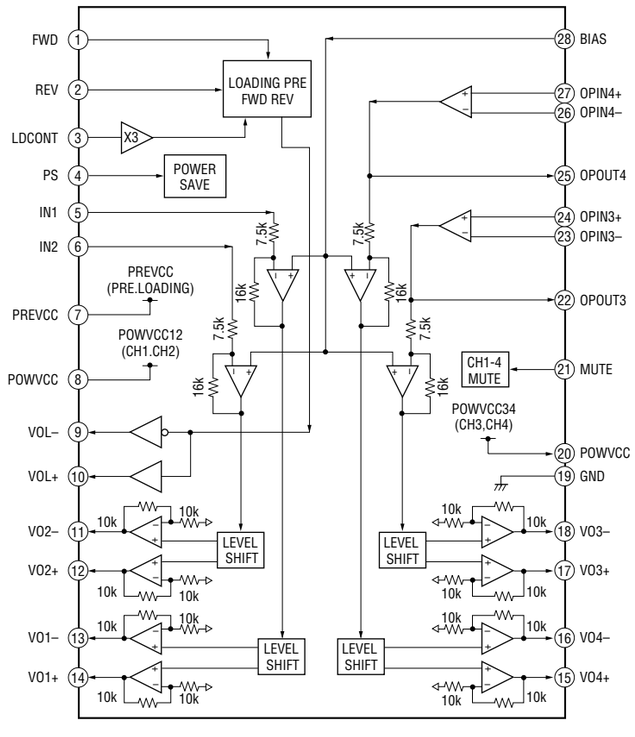

**Note:**
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

## 4-16. IC BLOCK DIAGRAMS

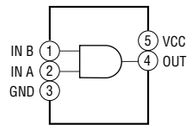
### IC1 µPD63711GC-8EU (SERVO Board (1/2))



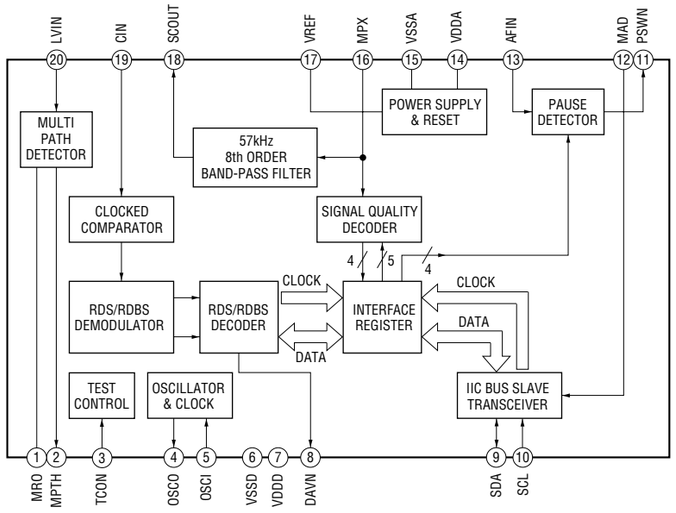

### IC2 BA5810FP (SERVO Board (2/2))



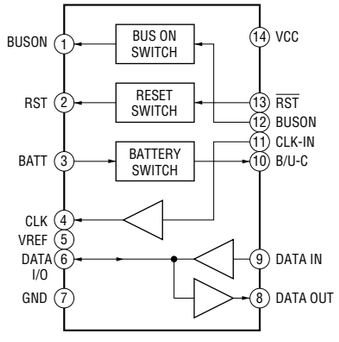

### IC12 TC7SH08FU (SERVO Board (2/2))



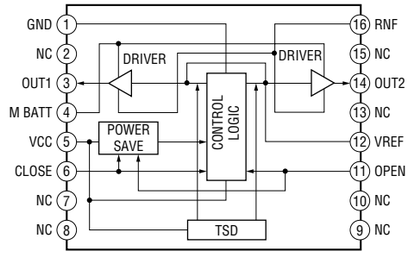

### IC502 SAA6588T (MAIN Board (1/2))



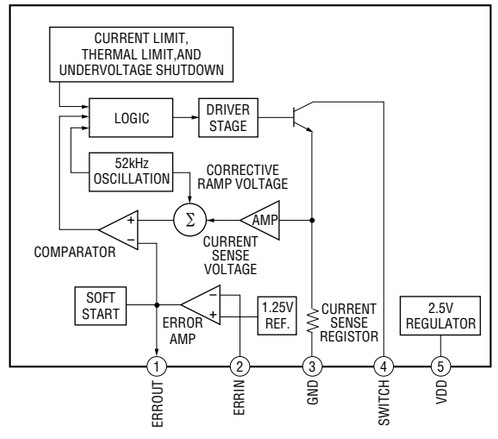

### IC301 BA8270F (MAIN Board (2/2))



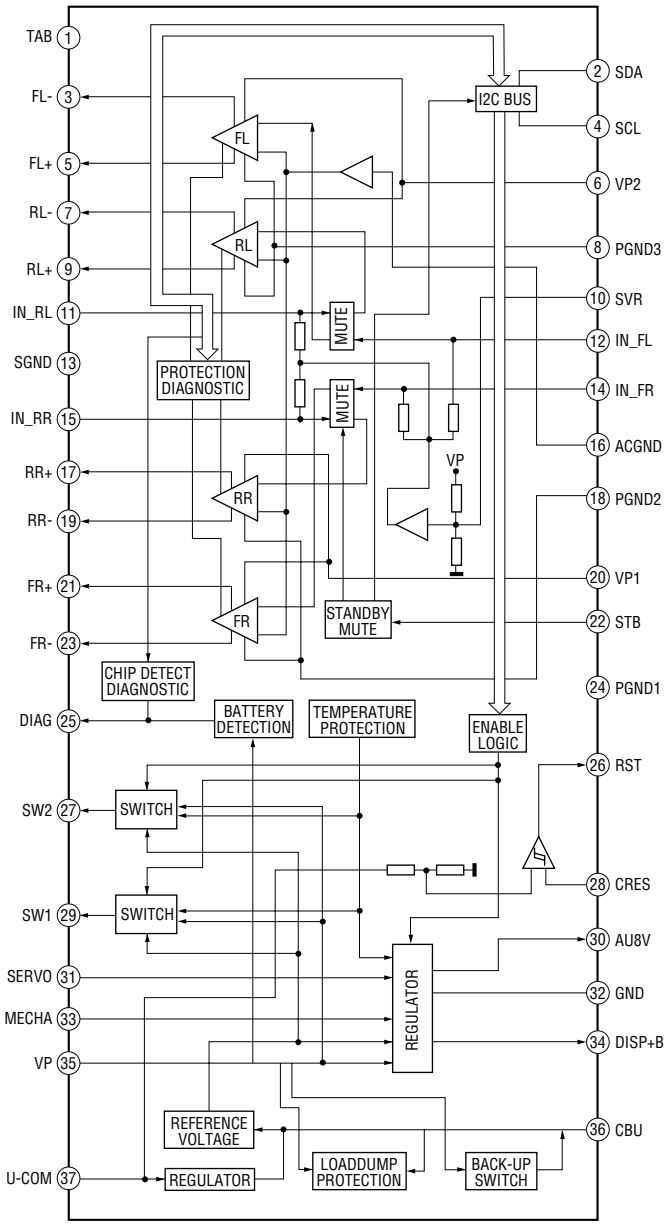

### IC307 BA6288FS (MAIN Board (2/2))



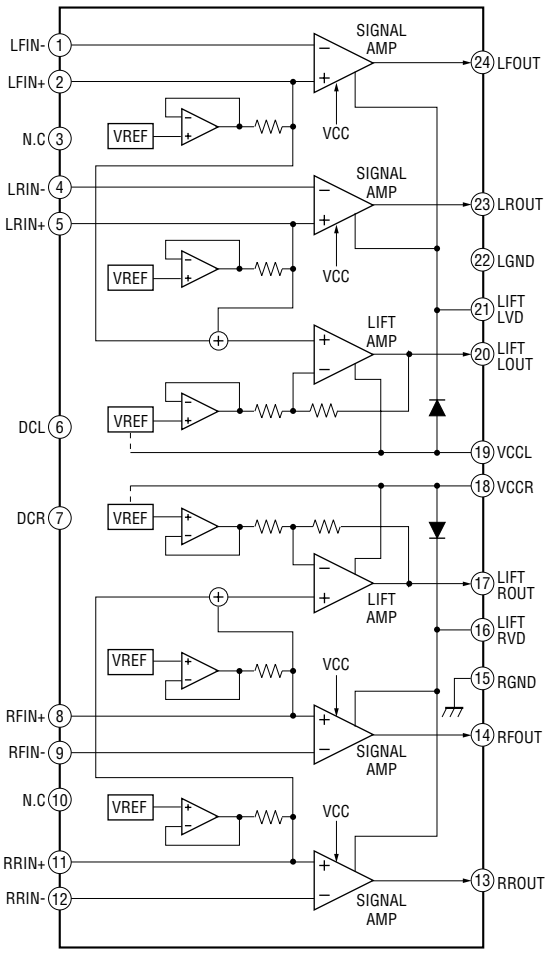

### IC800 LM2577SX-ADJ (MAIN Board (2/2))



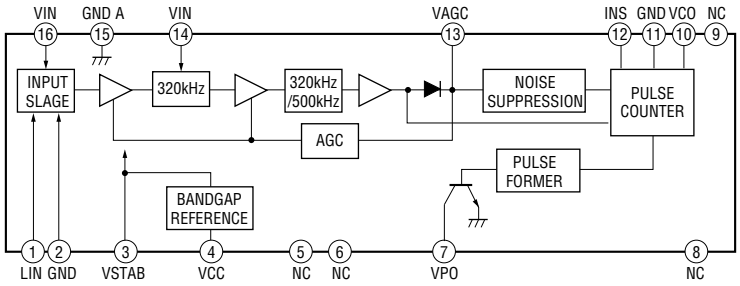
## IC201 TDA8588J/N1 (MAIN Board (1/2))



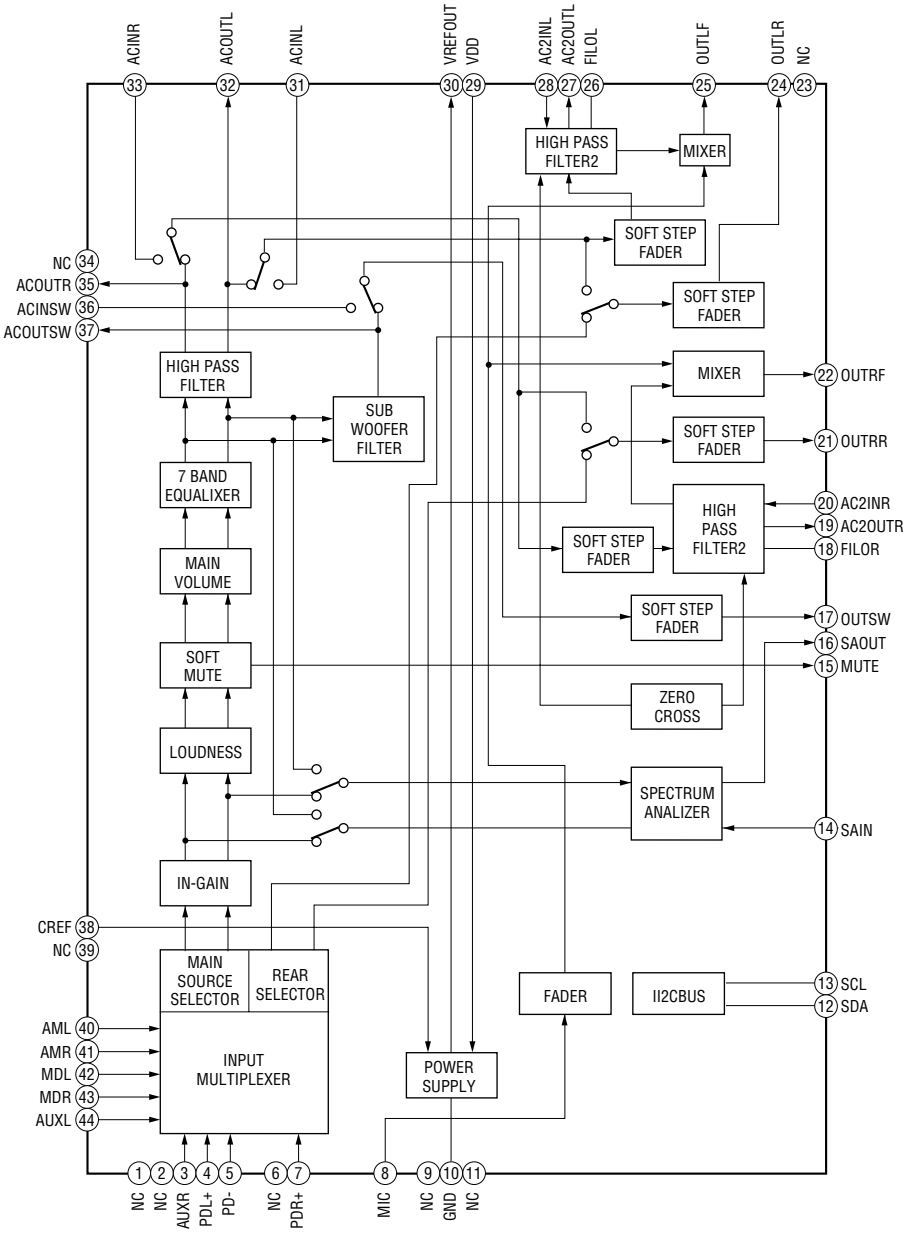

## IC407 LA2901V-TLM (MAIN Board (1/2))



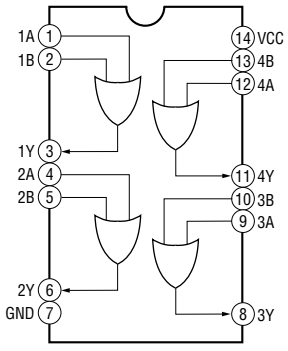

## IC503 RRX9000-0601 (SUB Board)
## IC62 RRX9000-0601 (DISPLAY Board)



## IC401 TDA7416 (MAIN Board (1/2))




## IC301 TC74VHC32FT(EL) (DISPLAY Board)



# SECTION 5
# EXPLODED VIEWS

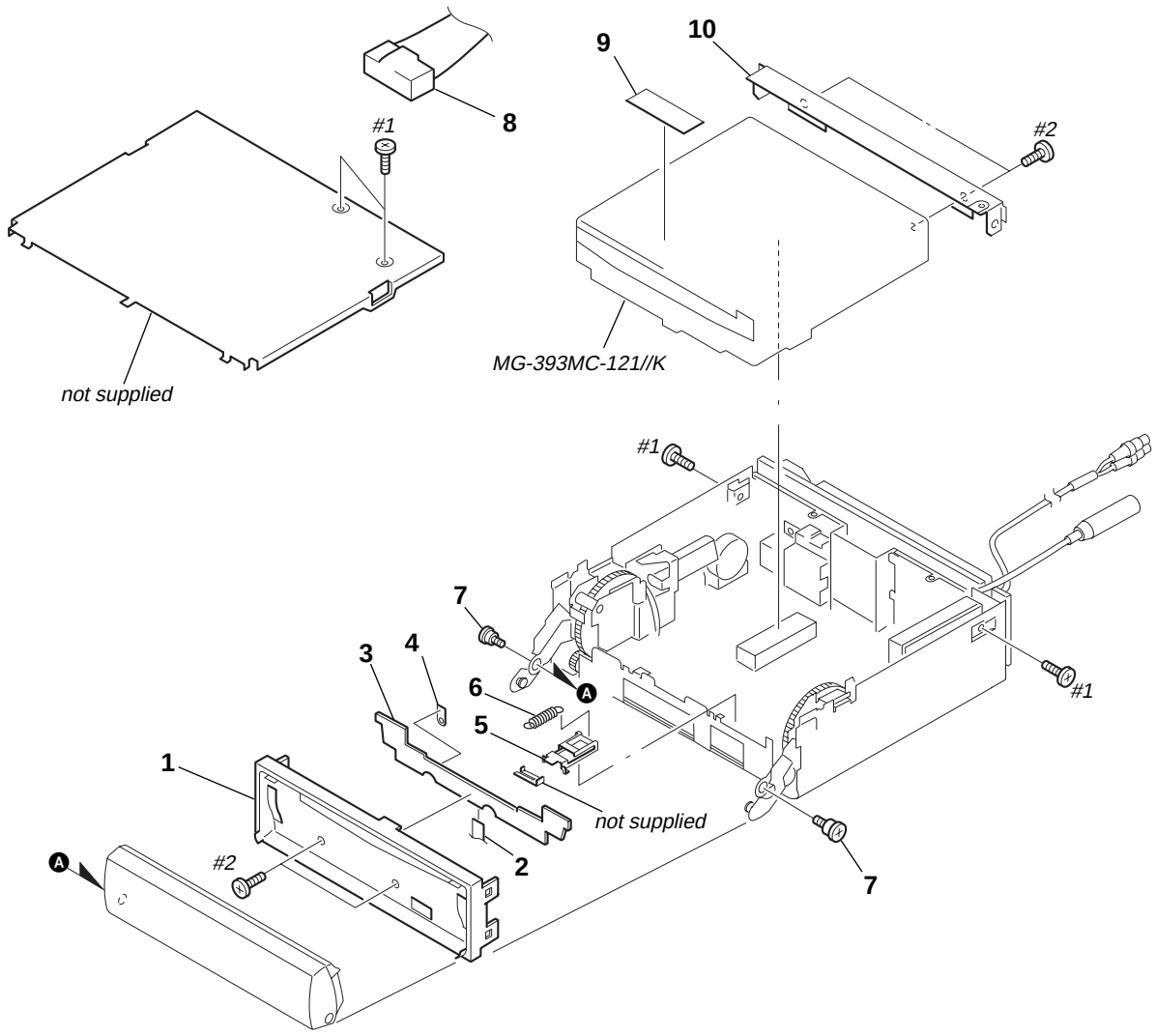
NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories are given in the last of this parts list.
- Abbreviation
  CND: Canadian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

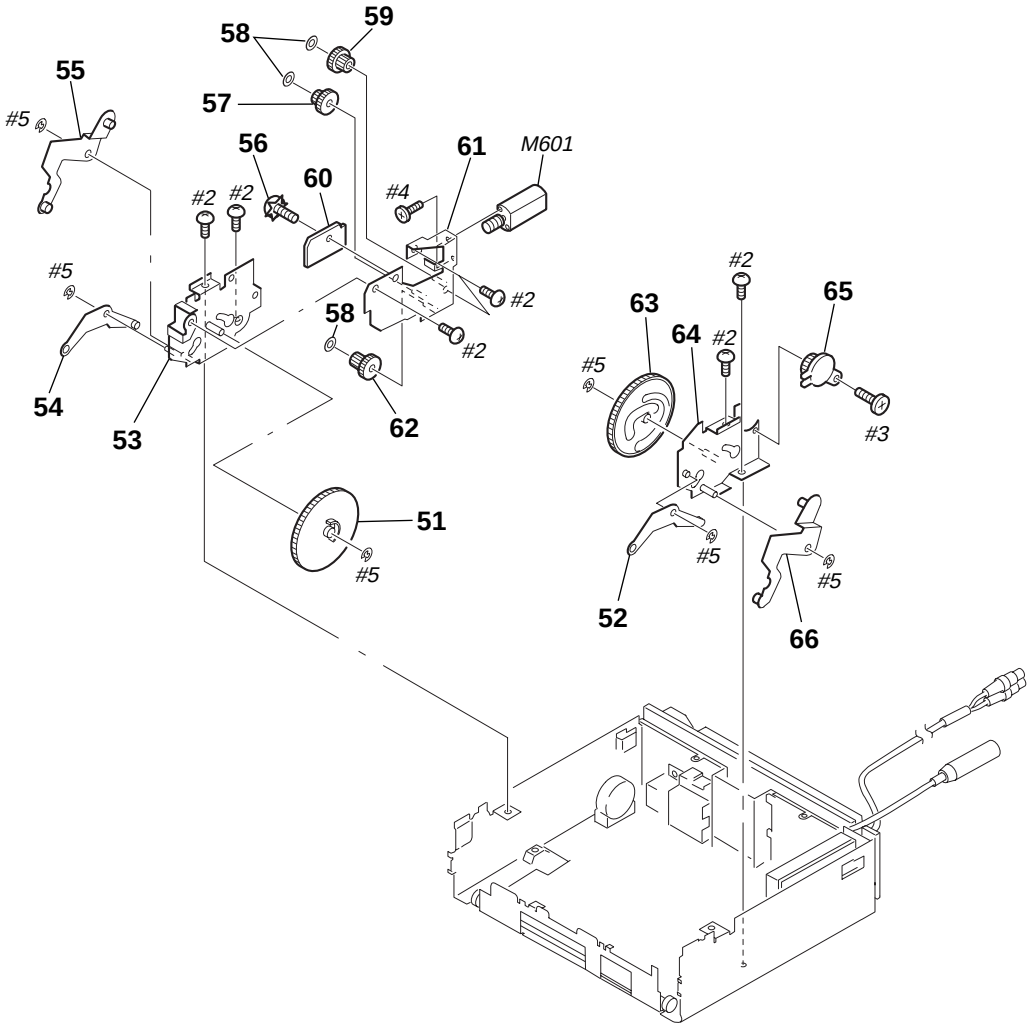
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

## 5-1. CHASSIS SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 1 | X-3383-098-1 | PANEL (CD) SUB ASSY, SUB (US,CND) | |
| 1 | X-3383-101-1 | PANEL (CD) SUB ASSY, SUB (AEP,UK,E) | |
| 2 | 1-783-268-11 | CABLE, FLAT (FFC) 11P | |
| 3 | 1-687-950-11 | SUB BOARD | |
| 4 | 3-232-857-01 | SHEET (SUB PANEL), ELECTROSTATIC | |
| 5 | 3-248-826-01 | COVER (FLEXIBLE) | |
| 6 | 3-230-516-01 | SPRING (FLEXIBLE), TENSION | |
| 7 | 3-045-756-01 | SCREW (PANEL) | |
| 8 | 1-776-207-72 | CORD (WITH CONNECTOR) (POWER) | (US,CND,E) |
| 8 | 1-776-527-71 | CORD (WITH CONNECTOR) (ISO) (POWER) | (AEP,UK) |
| 9 | 3-223-913-11 | LABEL (OP CAUTION) (AEP,UK,E) | |
| 10 | 3-248-858-01 | BRACKET (CD) | |
| #1 | 7-685-790-09 | SCREW +PTT 2.6X4 (S) | |
| #2 | 7-685-792-09 | SCREW +PTT 2.6X6 (S) | |

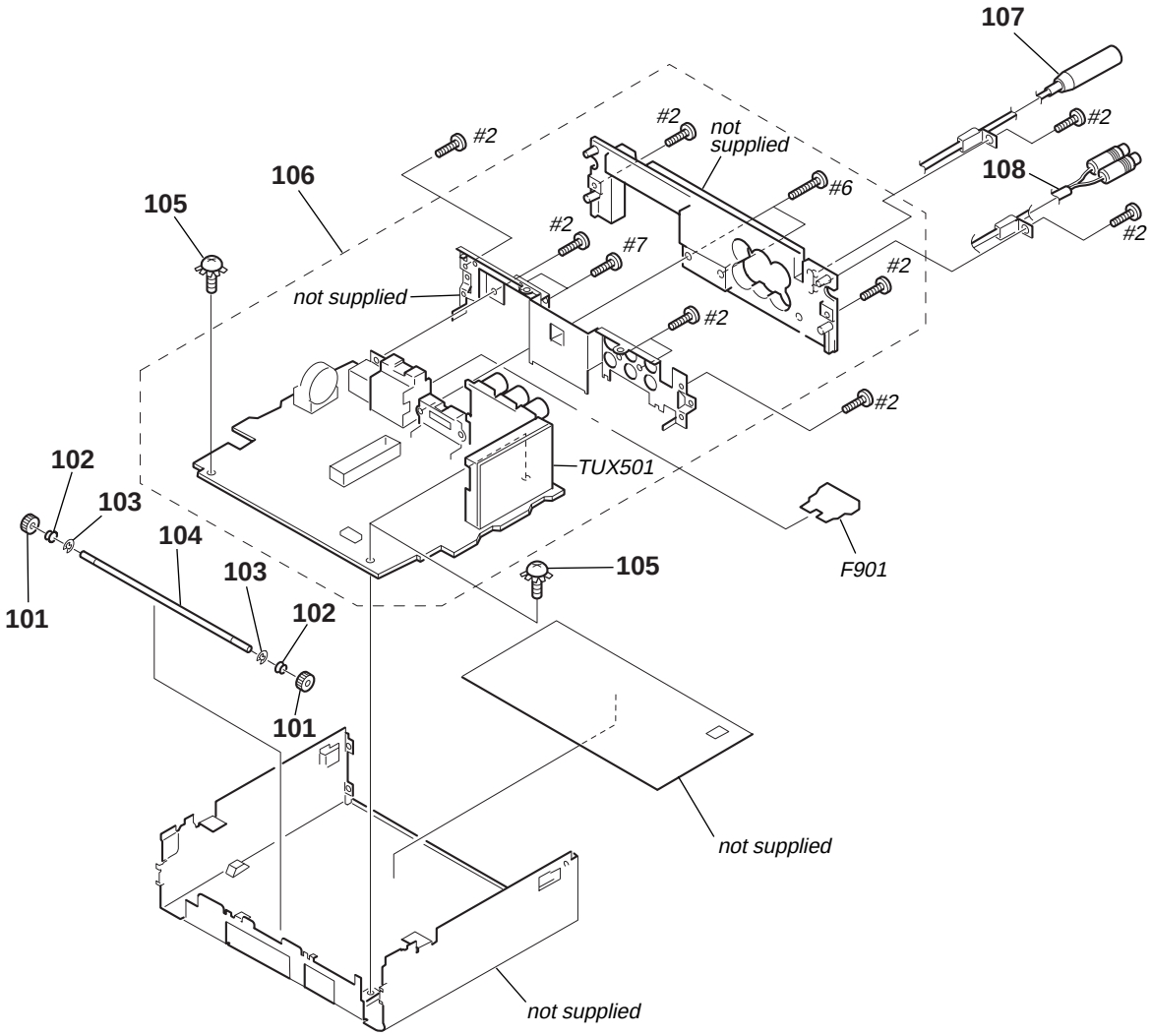
## 5-2. CAM SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 51 | 3-230-495-01 | CAM (L) | |
| 52 | X-3380-549-1 | ARM (B-R) ASSY | |
| 53 | X-3380-544-2 | BRACKET (L) ASSY | |
| 54 | X-3380-548-1 | ARM (B-L) ASSY | |
| 55 | X-3382-822-1 | ARM (A-L) ASSY | |
| 56 | 3-376-464-11 | SCREW (+PTT 2.6X6), GROUND POINT | |
| 57 | 3-045-714-01 | GEAR (B) | |
| 58 | 3-342-940-01 | WASHER (M) | |
| 59 | 3-045-713-01 | GEAR (A) | |
| 60 | A-3326-298-A | SWITCH BOARD, COMPLETE | |
| * 61 | X-3378-711-4 | BRACKET (MOTOR) ASSY | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 62 | 3-230-494-01 | GEAR (C) | |
| 63 | 3-230-496-01 | CAM (R) | |
| 64 | X-3380-545-2 | BRACKET (R) ASSY | |
| 65 | 3-030-909-11 | DAMPER, OIL | |
| 66 | X-3382-823-1 | ARM (A-R) ASSY | |
| M601 | X-3378-769-1 | MOTOR ASSY (OPEN/CLOSE) | |
| #2 | 7-685-792-09 | SCREW +PTT 2.6X6 (S) | |
| #3 | 7-621-772-18 | SCREW +P 2X4 | |
| #4 | 7-627-553-28 | SCREW, PRECISION +P 2X2.5 | |
| #5 | 7-624-102-04 | STOP RING 1.5, TYPE -E | |

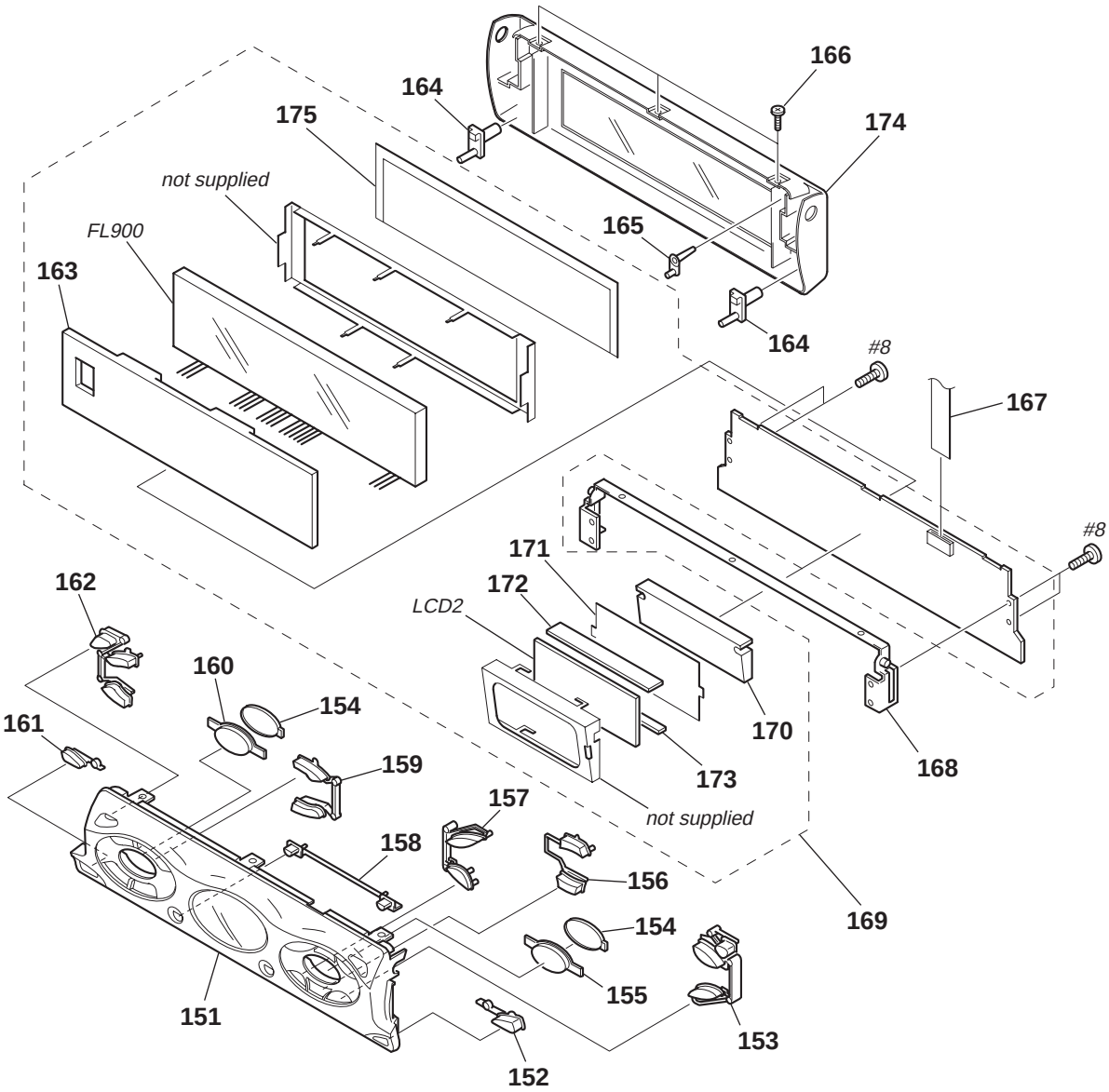
## 5-3. MAIN BOARD SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 101 | 3-230-493-01 | GEAR (DRIVE SHAFT) | |
| 102 | 3-230-444-01 | GUIDE (DRIVE SHAFT) | |
| 103 | 3-040-692-01 | RING, CE TYPE RETAINING | |
| 104 | 3-045-721-01 | SHAFT, DRIVE | |
| 105 | 3-376-464-11 | SCREW (+PTT 2.6X6), GROUND POINT | |
| 106 | A-3274-933-A | MAIN BOARD, COMPLETE (US,CND) | |
| 106 | A-3274-934-A | MAIN BOARD, COMPLETE (AEP,UK,E) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 107 | 1-777-246-41 | CORD (WITH CONNECTOR) (ANTENNA) | |
| 108 | 1-790-375-32 | CORD (WITH CONNECTOR) (SUB OUT (MONO)) | |
| F901 | 1-532-877-11 | FUSE (BLADE TYPE) (AUTO FUSE) 10A | |
| TUX501 | A-3220-887-A | TUNER UNIT (TUX-030) | |
| #2 | 7-685-792-09 | SCREW +PTT 2.6X6 (S) | |
| #6 | 7-685-795-09 | SCREW +PTT 2.6X12 (S) | |
| #7 | 7-685-134-19 | SCREW +P 2.6X8 TYPE2 NON-SLIT | |

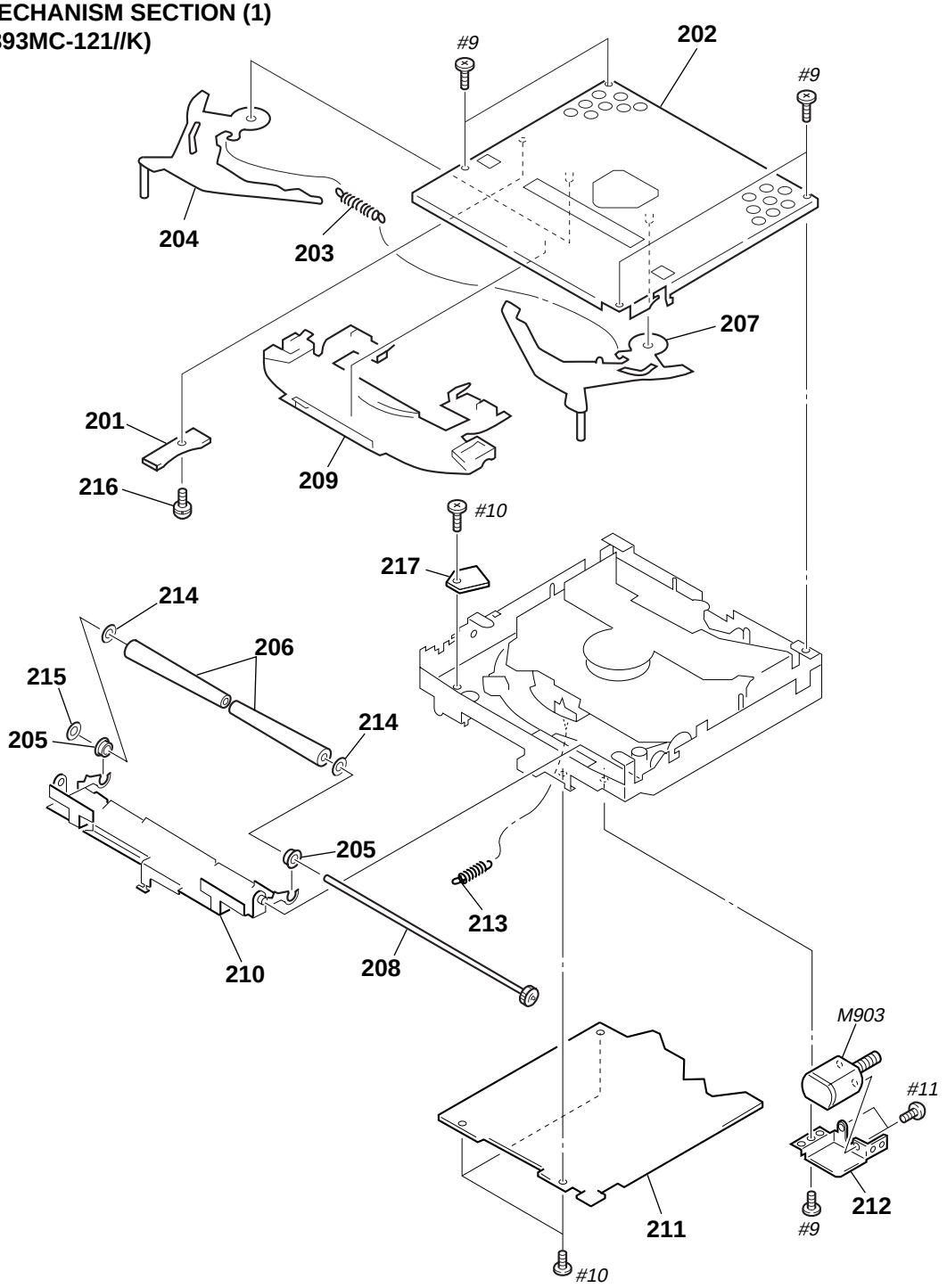
## 5-4. FRONT PANEL SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 151 | X-3383-766-1 | PANEL (KEY) ASSY (S), FRONT (US,CND) | |
| 151 | X-3383-768-1 | PANEL (KEY) ASSY (S), FRONT (AEP,UK,E) | |
| 152 | 3-238-816-01 | BUTTON (EJECT) | |
| 153 | 3-238-820-01 | BUTTON (ENTER) (US,CND) | |
| 153 | 3-238-820-11 | BUTTON (ENTER) (AEP,UK,E) | |
| 154 | 3-238-814-01 | HOLDER (REFLECTION), BUTTON | |
| 155 | X-3381-650-1 | BUTTON (SEEK/AMS) ASSY | |
| 156 | 3-238-821-01 | BUTTON (DISC) | |
| 157 | 3-238-819-01 | BUTTON (SOUND) | |
| 158 | 3-238-817-01 | BUTTON (DSO) | |
| 159 | 3-238-818-01 | BUTTON (MODE) (US,CND) | |
| 159 | 3-238-818-11 | BUTTON (MODE) (AEP,UK,E) | |
| 160 | X-3381-649-1 | BUTTON (VOL) ASSY | |
| 161 | 3-238-815-01 | BUTTON (CLOSE) | |
| 162 | 3-239-338-01 | BUTTON (SOURCE) | |
| 163 | 3-248-825-01 | PLATE (FL), GUIDE | |
| 164 | 3-248-791-01 | BUTTON (OPEN) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 165 | 3-248-789-01 | BUTTON (RESET-DSPL) | |
| 166 | 2-626-869-01 | SCREW (M2X3), SERRATION | |
| 167 | 1-687-952-11 | FLEXIBLE BOARD | |
| 168 | X-3381-646-1 | BRACKET (PANEL) ASSY | |
| 169 | A-3274-766-A | DISPLAY BOARD, COMPLETE (AEP,UK,E) | |
| 169 | A-3274-979-A | DISPLAY BOARD, COMPLETE (US,CND) | |
| 170 | 3-238-827-01 | PLATE (LCD KEY), LIGHT GUIDE | |
| 171 | 3-238-826-01 | SHEET (KEY), DIFFUSION | |
| 172 | 1-694-925-11 | CONDUCTIVE BOARD, CONNECTION | |
| 173 | 1-694-926-11 | CONDUCTIVE BOARD, CONNECTION | |
| 174 | X-3383-210-1 | PANEL (MAIN) ASSY, FRONT (AEP,UK,E) | |
| 174 | X-3383-692-1 | PANEL (MAIN) ASSY, FRONT (US,CND) | |
| 175 | 3-249-076-01 | FILTER (FL) (US,CND) | |
| 175 | 3-249-076-21 | FILTER (FL) (AEP,UK,E) | |
| FL900 | 1-518-879-11 | INDICATOR TUBE, FLUORESCENT | |
| LCD2 | 1-804-636-21 | DISPLAY PANEL, LIQUID CRYSTAL | |
| #8 | 7-685-104-19 | SCREW +P 2X6 TYPE2 NON-SLIT | |

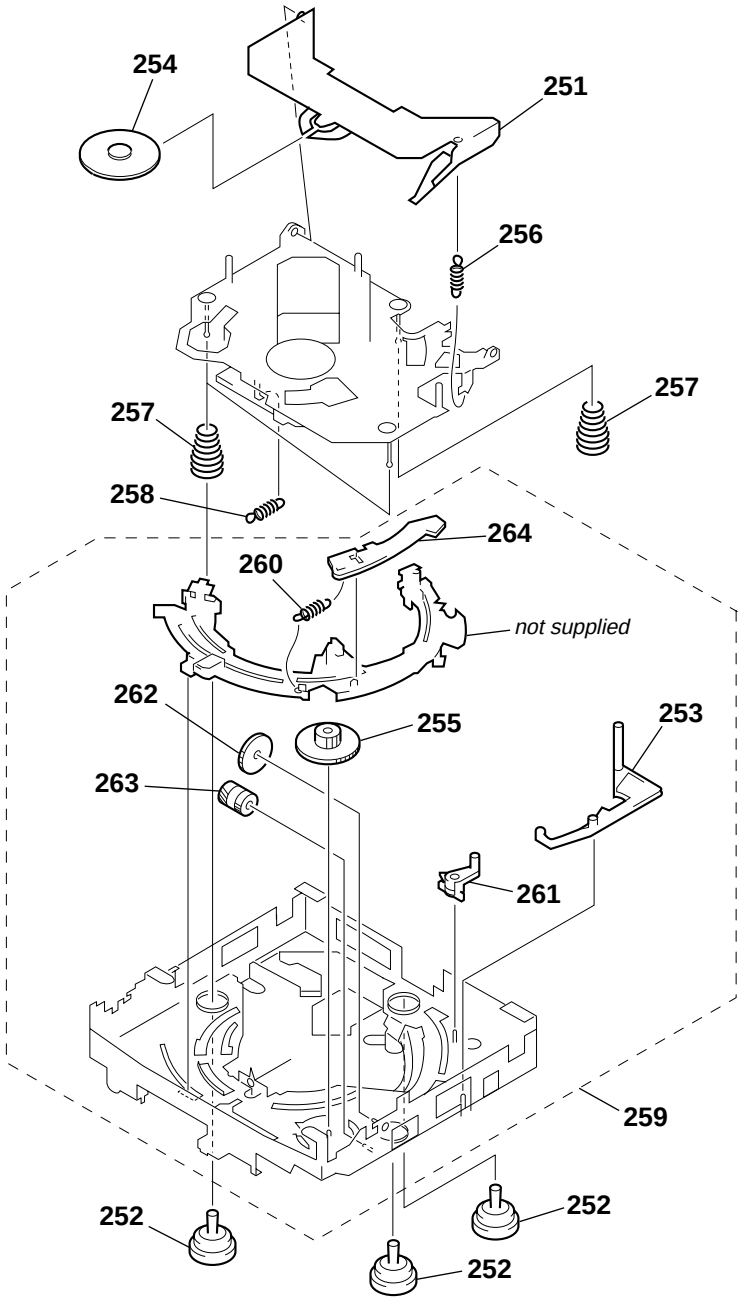
## 5-5. CD MECHANISM SECTION (1)
## (MG-393MC-121//K)




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 201 | A-3274-253-A | DISC IN SW BOARD, COMPLETE | |
| 202 | 3-040-039-03 | CHASSIS (T) | |
| 203 | 3-040-038-01 | SPRING (LR), TENSION | |
| 204 | 3-040-050-01 | LEVER (L) | |
| 205 | 3-040-022-01 | RETAINER (ROLLER), SHAFT | |
| 206 | 3-040-044-01 | ROLLER (S) | |
| 207 | 3-040-067-01 | LEVER (R) | |
| 208 | A-3301-980-A | SHAFT ROLLER ASSY | |
| 209 | 3-040-037-01 | GUIDE (DISC) | |
| 210 | 3-040-040-03 | ARM (ROLLER) | |
| 211 | A-3274-698-A | SERVO BOARD, COMPLETE | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 212 | 3-221-779-02 | BRACKET (MOTOR) | |
| 213 | 3-040-034-01 | SPRING (RA), TENSION | |
| 214 | 3-040-042-01 | WASHER | |
| 215 | 3-043-880-01 | RING (RA), RETAINING | |
| 216 | 3-044-206-11 | SCREW, SPECIAL | |
| 217 | 1-685-337-11 | LOAD SW BOARD | |
| M903 | A-3315-039-A | MOTOR SUB ASSY, LO (LOADING) | |
| #9 | 7-627-553-37 | SCREW, PRECISION +P 2X3 TYPE3 | |
| #10 | 7-628-253-00 | SCREW, SPECIAL | |
| #11 | 7-627-553-17 | SCREW, PRECISION +P 2X2 TYPE3 | |

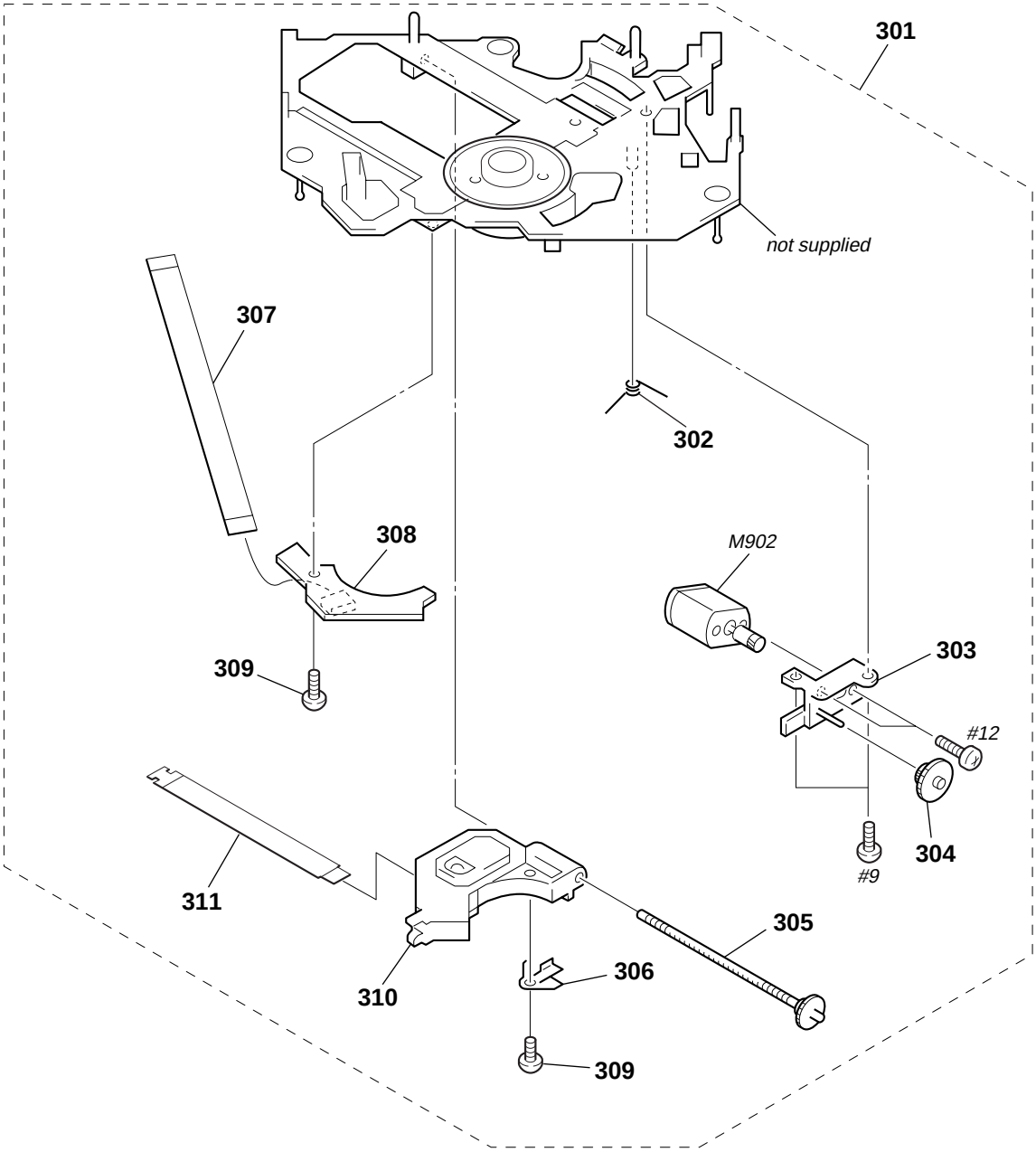
## 5-6. CD MECHANISM SECTION (2)
## (MG-393MC-121//K)




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 251 | 3-040-025-02 | ARM, CHUCKING | |
| 252 | 3-040-031-01 | DAMPER (T) | |
| 253 | 3-040-056-01 | LEVER (D) | |
| 254 | 3-040-024-01 | RETAINER (DISC) | |
| 255 | 3-040-054-01 | WHEEL (LW), WORM | |
| 256 | 3-040-026-01 | SPRING (CH), TENSION | |
| 257 | 3-040-032-01 | SPRING (FL), COMPRESSION | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 258 | 3-040-033-01 | SPRING (KF1), TENSION | |
| 259 | A-3307-422-A | CHASSIS (M) COMPLETE ASSY | |
| 260 | 3-040-059-01 | SPRING (TR), TENSION | |
| 261 | 3-040-057-01 | LEVER (LOCK) | |
| 262 | 3-040-058-01 | GEAR (MDL) | |
| 263 | 3-040-052-01 | WHEEL (U), WORM | |
| 264 | 3-040-051-02 | LEVER (TR) | |

## 5-7. CD MECHANISM SECTION (3)
## (MG-393MC-121//K)




| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.<br>Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.<br>Ne les remplacer que par une piéce portant le numéro spécifié. |
|---|---|

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 301 | A-3337-193-A | FLOATING BLOCK ASSY (including M901) | |
| 302 | 3-040-029-01 | SPRING (SL), TORSION | |
| 303 | 3-040-045-01 | BASE (DRIVING) | |
| 304 | 3-040-194-01 | GEAR (MIDWAY) | |
| 305 | A-3301-983-A | SHAFT (FEED) ASSY | |
| 306 | 3-040-030-01 | SPRING (FEED), PLATE | |
| 307 | 1-823-951-11 | CABLE, FLEXIBLE FLAT (16 CORE) | |
| 308 | A-3274-254-A | LIMIT SW BOARD, COMPLETE | |
| 309 | 3-909-607-01 | SCREW | |
| ⚠310 | 8-820-165-06 | OPTICAL PICK-UP KSS-721A/C-RP | |
| 311 | 1-676-707-11 | PICK-UP FLEXIBLE BOARD | |
| M902 | A-3301-985-A | MOTOR ASSY, SLED (SLED) | |
| #9 | 7-627-553-37 | SCREW, PRECISION +P 2X3 TYPE3 | |
| #12 | 7-627-850-28 | SCREW, PRECISION +P 1.4X3 | |

DISC IN SW | DISPLAY

# SECTION 6
# ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation
  CND: Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | A-3274-253-A | DISC IN SW BOARD, COMPLETE | | | |
| | | ********** | | | |
| ********** | | | | | |
| | A-3274-766-A | DISPLAY BOARD, COMPLETE (AEP,UK,E) | | | |
| | A-3274-979-A | DISPLAY BOARD, COMPLETE (US,CND) | | | |
| | | ********** | | | |
| | 1-694-925-11 | CONDUCTIVE BOARD, CONNECTION | | | |
| | 1-694-926-11 | CONDUCTIVE BOARD, CONNECTION | | | |
| | 3-238-826-01 | SHEET (KEY), DIFFUSION | | | |
| | 3-238-827-01 | PLATE (LCD KEY), LIGHT GUIDE | | | |
| | 3-248-825-01 | PLATE (FL), GUIDE | | | |
| | | < CAPACITOR > | | | |
| C901 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C902 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C903 | 1-162-959-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C904 | 1-127-760-11 | CERAMIC CHIP | 4.7uF | 10% | 6.3V |
| C905 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V |
| C907 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C908 | 1-165-176-11 | CERAMIC CHIP | 0.047uF | 10% | 16V |
| C909 | 1-165-176-11 | CERAMIC CHIP | 0.047uF | 10% | 16V |
| C910 | 1-165-176-11 | CERAMIC CHIP | 0.047uF | 10% | 16V |
| C911 | 1-115-412-11 | CERAMIC CHIP | 680PF | 5% | 25V |
| C912 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C913 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C914 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C915 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C920 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C921 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C922 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C960 | 1-162-908-11 | CERAMIC CHIP | 3PF | 0.25PF | 50V |
| C961 | 1-162-907-11 | CERAMIC CHIP | 2PF | 0.25PF | 50V |
| C962 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C963 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C970 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C973 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C983 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| | | < CONNECTOR > | | | |
| CNP908 | 1-774-678-21 | CONNECTOR, FPC (ZIF) 24P | | | |
| | | < PHOTO SENSOR > | | | |
| D70 | 8-719-083-14 | PHOTO SENSOR RRX9000-0501 | | | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | | < DIODE > | | | |
| D901 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D902 | 8-719-069-54 | DIODE UDZS-TE17-5.1B | | | |
| D908 | 8-719-056-85 | DIODE UDZ-TE-17-8.2B | | | |
| D910 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D911 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D912 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D913 | 8-719-083-66 | DIODE UDZS-TE17-18B | | | |
| D914 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D915 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D916 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D917 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D918 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D919 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D920 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D921 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| | | < FERRITE BEAD > | | | |
| FB60 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB901 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB902 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB903 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB904 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB905 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB906 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB907 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB908 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB909 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB910 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB911 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB912 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB913 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB914 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB915 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB916 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB917 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB918 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB919 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB920 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| FB921 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB922 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB923 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| FB924 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB925 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| FB926 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | |
| FB971 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | |
| | | < FLUORESCENT INDICATOR > | |
| FL900 | 1-518-879-11 | INDICATOR TUBE, FLUORESCENT | |
| | | < IC > | |
| IC1 | 6-701-630-01 | IC LC75848T-E | |
| IC2 | 6-803-157-01 | IC M30833FJGP-073 | |
| IC62 | 8-759-830-18 | IC RRX9000-0601#1 | |
| IC301 | 8-759-523-94 | IC TC74VHC32FT(EL) | |
| | | < LIQUID CRYSTAL DISPLAY > | |
| LCD2 | 1-804-636-21 | DISPLAY PANEL, LIQUID CRYSTAL | |
| | | < DIODE > | |
| LED901 | 8-719-053-09 | LED SML-310VT-T86 (OFF) | |
| LED902 | 8-719-053-09 | LED SML-310VT-T86 (SOURCE) | |
| LED903 | 8-719-053-09 | LED SML-310VT-T86 (CLOSE) | |
| LED905 | 8-719-053-09 | LED SML-310VT-T86 (SCRL) | |
| LED906 | 8-719-053-09 | LED SML-310VT-T86 (DSPL) (US,CND) | |
| LED906 | 8-719-053-09 | LED SML-310VT-T86 (DSPL/PTY) (AEP,UK,E) | |
| LED908 | 8-719-053-09 | LED SML-310VT-T86 (MODE) | |
| LED909 | 8-719-080-04 | LED CL-190UB-X-T (IMAGE) | |
| LED911 | 8-719-053-09 | LED SML-310VT-T86 (⏏) | |
| LED912 | 8-719-053-09 | LED SML-310VT-T86 (DISC –) | |
| LED913 | 8-719-053-09 | LED SML-310VT-T86 (ENTER) | |
| LED915 | 8-719-053-09 | LED SML-310VT-T86 (LIST) | |
| LED916 | 8-719-053-09 | LED SML-310VT-T86 (DISC +) | |
| LED917 | 8-719-053-09 | LED SML-310VT-T86 (MENU) | |
| LED919 | 8-719-053-09 | LED SML-310VT-T86 (DSO) | |
| LED920 | 8-719-053-09 | LED SML-310VT-T86 (EQ7) | |
| LED921 | 8-719-053-09 | LED SML-310VT-T86 (SOUND) | |
| LED922 | 8-719-053-09 | LED SML-310VT-T86 (TA) (AEP,UK,E) | |
| LED931 | 8-719-080-04 | LED CL-190UB-X-T (OPEN) | |
| LED955 | 8-719-076-58 | LED NSSW440-BRS (LCD BACK LIGHT) | |
| LED956 | 8-719-076-58 | LED NSSW440-BRS (LCD BACK LIGHT) | |
| LED957 | 8-719-079-10 | LED CL-220UB-X-TS (VOL) | |
| LED958 | 8-719-079-10 | LED CL-220UB-X-TS (SEEK/AMS) | |
| | | < TRANSISTOR > | |
| Q903 | 8-729-903-46 | TRANSISTOR 2SB1132-P | |
| Q904 | 8-729-900-53 | TRANSISTOR DTC114EK | |
| Q905 | 8-729-904-66 | TRANSISTOR DTD113EK-T-146 | |
| Q907 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q908 | 8-729-900-53 | TRANSISTOR DTC114EK | |
| | | < RESISTOR > | |
| R901 | 1-216-833-11 | METAL CHIP 10K 5% | 1/10W |
| R902 | 1-216-829-11 | METAL CHIP 4.7K 5% | 1/10W |
| R906 | 1-218-855-11 | RES-CHIP 2.2K 2% | 1/16W |
| R907 | 1-218-855-11 | RES-CHIP 2.2K 2% | 1/16W |
| R908 | 1-218-851-11 | RES-CHIP 1.5K 2% | 1/16W |
| R909 | 1-218-851-11 | RES-CHIP 1.5K 2% | 1/16W |
| R910 | 1-218-847-11 | RES-CHIP 1K 2% | 1/16W |
| R911 | 1-219-286-11 | RES-CHIP 680 2% | 1/16W |
| R912 | 1-219-286-11 | RES-CHIP 680 2% | 1/16W |
| R913 | 1-219-286-11 | RES-CHIP 680 2% | 1/16W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R914 | 1-218-867-11 | RES-CHIP | 6.8K | 2% | 1/16W |
| R915 | 1-218-863-11 | RES-CHIP | 4.7K | 2% | 1/16W |
| R916 | 1-218-859-11 | RES-CHIP | 3.3K | 2% | 1/16W |
| R917 | 1-218-855-11 | RES-CHIP | 2.2K | 2% | 1/16W |
| R918 | 1-218-851-11 | RES-CHIP | 1.5K | 2% | 1/16W |
| R919 | 1-218-851-11 | RES-CHIP | 1.5K | 2% | 1/16W |
| R920 | 1-218-847-11 | RES-CHIP | 1K | 2% | 1/16W |
| R921 | 1-219-286-11 | RES-CHIP | 680 | 2% | 1/16W |
| R922 | 1-219-286-11 | RES-CHIP | 680 | 2% | 1/16W |
| R923 | 1-219-286-11 | RES-CHIP | 680 | 2% | 1/16W |
| R925 | 1-218-871-11 | RES-CHIP | 10K | 2% | 1/16W (AEP,UK,E) |
| R928 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W |
| R929 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R935 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R936 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R939 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R940 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R941 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R942 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R944 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R945 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R946 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W |
| R947 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R948 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R949 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R950 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R951 | 1-216-040-00 | RES-CHIP | 430 | 5% | 1/10W |
| R952 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W |
| R953 | 1-216-040-00 | RES-CHIP | 430 | 5% | 1/10W |
| R954 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R955 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R956 | 1-216-040-00 | RES-CHIP | 430 | 5% | 1/10W |
| R957 | 1-216-040-00 | RES-CHIP | 430 | 5% | 1/10W |
| R958 | 1-216-040-00 | RES-CHIP | 430 | 5% | 1/10W |
| R959 | 1-216-040-00 | RES-CHIP | 430 | 5% | 1/10W |
| R960 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R961 | 1-216-040-00 | RES-CHIP | 430 | 5% | 1/10W |
| R962 | 1-216-040-00 | RES-CHIP | 430 | 5% | 1/10W |
| R964 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R965 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R967 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R968 | 1-216-850-11 | METAL CHIP | 270K | 5% | 1/10W |
| R969 | 1-216-846-11 | METAL CHIP | 120K | 5% | 1/10W |
| R970 | 1-216-818-11 | METAL CHIP | 560 | 5% | 1/10W |
| R971 | 1-216-017-11 | RES-CHIP | 47 | 5% | 1/10W |
| R972 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R978 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R979 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R980 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R981 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R982 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R984 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R985 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R986 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R987 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R988 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W |
| R989 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W |

**DISPLAY** | **LIMIT SW** | **LOAD SW** | **MAIN**

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R990 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W (US,CND) |
| R991 | 1-218-855-11 | RES-CHIP | 2.2K | 2% | 1/16W |
| R992 | 1-218-855-11 | RES-CHIP | 2.2K | 2% | 1/16W |
| R994 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R999 | 1-216-017-11 | RES-CHIP | 47 | 5% | 1/10W |
| | | < SWITCH > | | | |
| S901 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (OFF) | | | |
| S902 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (SOURCE) | | | |
| S903 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (CLOSE) | | | |
| S904 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (VOL –) | | | |
| S905 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (SCRL) | | | |
| S906 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (DSPL) (US,CND) | | | |
| S906 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (DSPL/PTY) (AEP,UK,E) | | | |
| S907 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (VOL +) | | | |
| S908 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (MODE) | | | |
| S909 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (IMAGE) | | | |
| S911 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (⏏) | | | |
| S912 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (DISC –) | | | |
| S913 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (ENTER) | | | |
| S914 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (▶▶I ▶▶ SEEK/AMS) | | | |
| S915 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (LIST) | | | |
| S916 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (DISC +) | | | |
| S917 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (MENU) | | | |
| S918 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (I◀◀ ◀◀ SEEK/AMS) | | | |
| S919 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (DSO) | | | |
| S920 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (EQ7) | | | |
| S921 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (SOUND) | | | |
| S922 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (TA) (AEP,UK,E) | | | |
| S931 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (OPEN) | | | |
| S932 | 1-771-884-31 | SWITCH, TACTILE (WITH LED) (RESET) | | | |
| | | < VIBRATOR > | | | |
| X301 | 1-795-918-21 | VIBRATOR, CRYSTAL (30MHz) | | | |
| ********** | | | | | |
| | A-3274-254-A | LIMIT SW BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CONNECTOR > | | | |
| CN13 | 1-816-275-21 | CONNECTOR, FFC/FPC 6P | | | |
| ********** | | | | | |
| | 1-685-337-11 | LOAD SW BOARD | | | |
| | | ********** | | | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | A-3274-933-A | MAIN BOARD, COMPLETE (US,CND) | | | |
| | A-3274-934-A | MAIN BOARD, COMPLETE (AEP,UK,E) | | | |
| | | ********** | | | |
| | 7-685-134-19 | SCREW +P 2.6X8 TYPE2 NON-SLIT | | | |
| | 7-685-792-09 | SCREW +PTT 2.6X6 (S) | | | |
| | 7-685-795-09 | SCREW +PTT 2.6X12 (S) | | | |
| | | < CAPACITOR > | | | |
| C101 | 1-126-940-11 | ELECT | 330uF | 20% | 16V |
| C102 | 1-104-942-11 | ELECT | 1uF | 20% | 50V |
| C103 | 1-135-473-21 | ELECT | 3300uF | 20% | 16V |
| C104 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C105 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C142 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C172 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C173 | 1-128-428-11 | ELECT | 10uF | 20% | 35V |
| C178 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C182 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C183 | 1-128-428-11 | ELECT | 10uF | 20% | 35V |
| C188 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C199 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C201 | 1-115-467-11 | CERAMIC CHIP | 0.22uF | 10% | 10V |
| C202 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C203 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C204 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C205 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C206 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C207 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C208 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C209 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C210 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C212 | 1-104-396-11 | ELECT | 10uF | 20% | 16V |
| C214 | 1-104-396-11 | ELECT | 10uF | 20% | 16V |
| C215 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C216 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C217 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C218 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C219 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C221 | 1-104-396-11 | ELECT | 10uF | 20% | 16V |
| C223 | 1-104-396-11 | ELECT | 10uF | 20% | 16V |
| C226 | 1-104-396-11 | ELECT | 10uF | 20% | 16V |
| C242 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C272 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C273 | 1-128-428-11 | ELECT | 10uF | 20% | 35V |
| C278 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C282 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C283 | 1-128-428-11 | ELECT | 10uF | 20% | 35V |
| C288 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C301 | 1-128-057-11 | ELECT | 330uF | 20% | 6.3V |
| C302 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C303 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C304 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C305 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C306 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C307 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C308 | 1-104-942-11 | ELECT | 1uF | 20% | 50V |
| C309 | 1-104-942-11 | ELECT | 1uF | 20% | 50V |
| C310 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C311 | 1-128-647-11 | DOUBLE LAYERS | 0.1F | | 5.5V |
| C312 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C313 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C315 | 1-162-918-11 | CERAMIC CHIP | 18PF | 5% | 50V |
| C316 | 1-162-918-11 | CERAMIC CHIP | 18PF | 5% | 50V |
| C317 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C318 | 1-162-968-11 | CERAMIC CHIP | 0.0047uF | 10% | 50V |
| C319 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C320 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C321 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C322 | 1-164-160-11 | CERAMIC CHIP | 20PF | 5% | 50V |
| C323 | 1-162-917-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C324 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C331 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C332 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C334 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C335 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C336 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C337 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C338 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C339 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C341 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C342 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C400 | 1-104-396-11 | ELECT | 10uF | 20% | 16V |
| C401 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C402 | 1-125-889-11 | CERAMIC CHIP | 2.2uF | 10% | 10V |
| C403 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C416 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C417 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C418 | 1-104-396-11 | ELECT | 10uF | 20% | 16V |
| C419 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C420 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C421 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C422 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C423 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C424 | 1-162-965-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C425 | 1-136-154-00 | FILM | 0.012uF | 5% | 50V |
| C426 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C427 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C428 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C429 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C430 | 1-162-965-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C431 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C432 | 1-136-154-00 | FILM | 0.012uF | 5% | 50V |
| C433 | 1-104-942-11 | ELECT | 1uF | 20% | 50V |
| C434 | 1-104-942-11 | ELECT | 1uF | 20% | 50V |
| C435 | 1-104-942-11 | ELECT | 1uF | 20% | 50V |
| C437 | 1-104-665-11 | ELECT | 100uF | 20% | 10V |
| C438 | 1-162-965-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C439 | 1-162-965-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C440 | 1-104-665-11 | ELECT | 100uF | 20% | 10V |
| C441 | 1-126-795-11 | ELECT | 10uF | 20% | 50V |
| C442 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C443 | 1-128-428-11 | ELECT | 10uF | 20% | 35V |
| C470 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C475 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C501 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C502 | 1-104-396-11 | ELECT | 10uF | 20% | 16V |
| C503 | 1-124-259-11 | ELECT | 4.7uF | 20% | 16V (AEP,UK,E) |
| C505 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V (AEP,UK,E) |
| C506 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V (AEP,UK,E) |
| C507 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C508 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C509 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C510 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C520 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V (AEP,UK,E) |
| C521 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V (AEP,UK,E) |
| C522 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V (AEP,UK,E) |
| C523 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V (AEP,UK,E) |
| C524 | 1-126-786-11 | ELECT | 47uF | 20% | 16V (AEP,UK,E) |
| C525 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V (AEP,UK,E) |
| C526 | 1-162-959-11 | CERAMIC CHIP | 330PF | 5% | 50V (AEP,UK,E) |
| C527 | 1-135-834-11 | CERAMIC CHIP | 2.2uF | | 6.3V (AEP,UK,E) |
| C528 | 1-164-739-11 | CERAMIC CHIP | 560PF | 5% | 50V (AEP,UK,E) |
| C542 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C601 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C602 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C603 | 1-128-057-11 | ELECT | 330uF | 20% | 6.3V |
| C801 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C802 | 1-165-874-21 | ELECT CHIP | 120uF | 20% | 6.3V |
| C803 | 1-128-576-11 | ELECT | 100uF | 20% | 63V |
| C807 | 1-110-501-11 | CERAMIC CHIP | 0.33uF | 10% | 16V |
| C809 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C810 | 1-128-416-11 | ELECT CHIP | 100uF | 20% | 16V |
| C901 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C903 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C928 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C930 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C981 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C982 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C983 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C984 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |

< CONNECTOR >

| | | | |
|---|---|---|---|
| * | CN401 | 1-506-985-11 | PIN, CONNECTOR (PC BOARD) 3P |
| * | CN503 | 1-506-984-11 | PIN, CONNECTOR (PC BOARD) 2P |
| * | CN601 | 1-506-985-11 | PIN, CONNECTOR (PC BOARD) 3P |
| | CNP101 | 1-774-701-21 | PIN, CONNECTOR 16P |
| | CNP102 | 1-580-907-31 | PLUG, CONNECTOR (BUS CONTROL IN) |
| | CNP301 | 1-815-260-11 | CONNECTOR, BOARD TO BOARD 30P |
| | CNP805 | 1-563-614-31 | CONNECTOR, FLEXIBLE 11P |
| * | CNP902 | 1-568-954-11 | PIN, CONNECTOR 5P |
| | CNP909 | 1-774-677-21 | CONNECTOR, FPC (ZIF) 24P |

# MAIN

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < JACK > | |
| CNJ101 | 1-764-270-21 | JACK, STEREO MINIATURE (DIA.3.5) | (REMOTE IN) |
| | | < DIODE > | |
| D101 | 8-719-083-66 | DIODE UDZS-TE17-18B | |
| D102 | 8-719-083-66 | DIODE UDZS-TE17-18B | |
| D103 | 8-719-420-51 | DIODE MA729 | |
| D104 | 8-719-069-56 | DIODE UDZS-TE17-6.2B | |
| D105 | 8-719-083-66 | DIODE UDZS-TE17-18B | |
| D106 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D108 | 8-719-083-66 | DIODE UDZS-TE17-18B | |
| D109 | 8-719-049-38 | DIODE 1N5404TU | |
| D110 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D111 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D112 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D113 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D114 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D115 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D116 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D117 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D118 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D119 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D120 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D121 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D122 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D123 | 8-719-083-66 | DIODE UDZS-TE17-18B | |
| D302 | 8-719-914-43 | DIODE DAN202K | |
| D303 | 8-719-914-44 | DIODE DAP202K | |
| D305 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| D401 | 8-719-404-50 | DIODE MA111-TX | |
| D403 | 8-719-069-55 | DIODE UDZS-TE17-5.6B | |
| D501 | 8-719-069-55 | DIODE UDZS-TE17-5.6B | |
| D802 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D803 | 8-719-053-18 | DIODE 1SR154-400TE-25 | |
| D804 | 8-719-055-30 | DIODE D1FS4A-TA | |
| D805 | 8-719-055-30 | DIODE D1FS4A-TA | |
| D806 | 8-719-055-33 | DIODE D1FL40 | |
| D808 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D810 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D819 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D820 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D825 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D826 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D827 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D828 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D829 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D831 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D832 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| D843 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | |
| D901 | 8-719-420-51 | DIODE MA729 | |
| D902 | 8-719-420-51 | DIODE MA729 | |
| D903 | 8-719-420-51 | DIODE MA729 | |
| D904 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| D905 | 8-719-069-55 | DIODE UDZS-TE17-5.6B | |
| D906 | 8-719-420-51 | DIODE MA729 | |
| D907 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| D909 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| D920 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| D921 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| | | < FERRITE BEAD > | |
| FB101 | 1-414-813-11 | FERRITE, EMI (SMD) | |
| FB102 | 1-414-813-11 | FERRITE, EMI (SMD) | |
| FB301 | 1-216-295-11 | SHORT CHIP 0 | |
| FB302 | 1-216-295-11 | SHORT CHIP 0 | |
| FB501 | 1-414-813-11 | FERRITE, EMI (SMD) (AEP,UK,E) | |
| | | < IC > | |
| IC201 | 6-703-375-01 | IC TDA8588J/N1 | |
| IC301 | 8-759-449-89 | IC BA8270F-E2 | |
| IC302 | 8-759-658-25 | IC PST3432UL | |
| IC303 | 6-802-886-01 | IC M30626FHPGP-054 | |
| IC306 | 8-759-668-14 | IC PQ09DZ1U | |
| IC307 | 8-759-580-33 | IC BA6288FS-E2 | |
| IC308 | 8-759-701-01 | IC NJM2904M | |
| IC401 | 6-703-303-01 | IC TDA7416 | |
| IC407 | 6-703-419-01 | IC LA2901V-TLM-E | |
| IC410 | 8-759-385-17 | IC NJM4580E(TE2) | |
| IC502 | 6-703-809-01 | IC SAA6588T/V2-518 (AEP,UK,E) | |
| IC701 | 8-759-679-05 | IC TC7WH34FU(TE12R) | |
| IC800 | 8-759-598-63 | IC LM2577SX-ADJ | |
| IC902 | 6-703-986-01 | IC NJU7222U33-TE1 | |
| IC903 | 8-759-491-50 | IC TC74VHCT244AFT(EL) | |
| | | < JUMPER RESISTOR > | |
| JR301 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | (AEP,UK,E) |
| JR302 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | (US,CND) |
| JR801 | 1-216-864-11 | METAL CHIP 0 5% 1/10W | |
| | | < COIL > | |
| L101 | 1-419-476-31 | COIL, CHOKE 250uH | |
| L302 | 1-414-185-51 | INDUCTOR 22uH | |
| L303 | 1-412-006-31 | INDUCTOR 10uH | |
| L503 | 1-216-296-11 | SHORT CHIP 0 | |
| L800 | 1-424-911-11 | COIL, POWER 100uH | |
| L901 | 1-414-394-41 | INDUCTOR 2.2uH | |
| | | < JACK > | |
| PJ401 | 1-774-700-11 | JACK, PIN 6P (BUS AUDIO IN/AUX IN, AUDIO OUT REAR/FRONT) | |
| | | < TRANSISTOR > | |
| Q101 | 8-729-900-53 | TRANSISTOR DTC114EK | |
| Q102 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q103 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q171 | 8-729-021-95 | TRANSISTOR RN1441-A(TE85L) | |
| Q181 | 8-729-021-95 | TRANSISTOR RN1441-A(TE85L) | |
| Q271 | 8-729-021-95 | TRANSISTOR RN1441-A(TE85L) | |
| Q281 | 8-729-021-95 | TRANSISTOR RN1441-A(TE85L) | |
| Q305 | 8-729-901-00 | TRANSISTOR DTC124EK | |
| Q306 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q307 | 8-729-901-81 | TRANSISTOR 2SC2412K-T-146-R | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| Q380 | 1-801-806-11 | TRANSISTOR DTC144EKA (AEP,UK,E) | | | |
| Q401 | 8-729-900-53 | TRANSISTOR DTC114EK | | | |
| Q402 | 8-729-027-23 | TRANSISTOR DTA114EKA-T146 | | | |
| Q408 | 8-729-053-84 | FET SSM3KO9FU(T5LSONY1) | | | |
| Q470 | 8-729-021-95 | TRANSISTOR RN1441-A(TE85L) | | | |
| Q501 | 8-729-106-68 | TRANSISTOR 2SD1615A-GP | | | |
| Q801 | 8-729-054-36 | FET UPA1716G-E2 | | | |
| Q802 | 8-729-900-53 | TRANSISTOR DTC114EK | | | |
| Q901 | 8-729-055-96 | TRANSISTOR SRC1203SF | | | |
| Q902 | 8-729-055-92 | TRANSISTOR SRA2203SF | | | |
| Q903 | 8-729-055-92 | TRANSISTOR SRA2203SF | | | |
| Q904 | 8-729-055-96 | TRANSISTOR SRC1203SF | | | |
| Q907 | 8-729-901-81 | TRANSISTOR 2SC2412K-T-146-R | | | |
| Q914 | 8-729-027-31 | TRANSISTOR DTA124EKA-T146 | | | |
| Q915 | 8-729-015-11 | TRANSISTOR 2SD1802FAST-TL | | | |
| Q916 | 8-729-901-00 | TRANSISTOR DTC124EK | | | |
| | | < RESISTOR > | | | |
| R101 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/10W |
| R102 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R103 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R104 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W |
| R105 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R106 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R107 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W |
| R108 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W |
| R109 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R110 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R111 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R112 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R142 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R143 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R174 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R175 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R184 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R185 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R201 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R202 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R203 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R204 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R205 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R206 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R242 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R243 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R274 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R275 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R284 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R285 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R301 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R302 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R303 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R307 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W |
| R318 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R319 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R320 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R321 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R322 | 1-216-823-11 | METAL CHIP | 1.5K | 5% | 1/10W |
| R323 | 1-216-823-11 | METAL CHIP | 1.5K | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R324 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R325 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R326 | 1-216-853-11 | METAL CHIP | 470K | 5% | 1/10W |
| R327 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R328 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R329 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R330 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R331 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W |
| R332 | 1-218-871-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R333 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R334 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R335 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W |
| R336 | 1-216-836-11 | METAL CHIP | 18K | 5% | 1/10W |
| R337 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W |
| R338 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W |
| R339 | 1-216-085-11 | RES-CHIP | 33K | 5% | 1/10W |
| R340 | 1-216-298-00 | METAL CHIP | 2.2 | 5% | 1/10W |
| R341 | 1-216-298-00 | METAL CHIP | 2.2 | 5% | 1/10W |
| R342 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R343 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R346 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R350 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R351 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R356 | 1-218-871-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R357 | 1-218-871-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R360 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/10W |
| R361 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W (AEP,UK,E) |
| R364 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R365 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R366 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R367 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R368 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R369 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R370 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/10W |
| R371 | 1-216-298-00 | METAL CHIP | 2.2 | 5% | 1/10W |
| R372 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R373 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R377 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R380 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W (AEP,UK,E) |
| R401 | 1-216-017-11 | RES-CHIP | 47 | 5% | 1/10W |
| R402 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R403 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R407 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R408 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R410 | 1-216-295-11 | SHORT CHIP | 0 | | |
| R414 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R415 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R416 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R417 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R418 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R419 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R420 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R421 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R422 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R424 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R425 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |

**MAIN** **SERVO**

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R427 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R429 | 1-202-926-11 | METAL CHIP | 36K | 5% | 1/10W |
| R430 | 1-218-725-11 | METAL CHIP | 24K | 5% | 1/10W |
| R431 | 1-202-926-11 | METAL CHIP | 36K | 5% | 1/10W |
| R432 | 1-218-725-11 | METAL CHIP | 24K | 5% | 1/10W |
| R433 | 1-202-926-11 | METAL CHIP | 36K | 5% | 1/10W |
| R434 | 1-218-725-11 | METAL CHIP | 24K | 5% | 1/10W |
| R435 | 1-202-926-11 | METAL CHIP | 36K | 5% | 1/10W |
| R436 | 1-218-725-11 | METAL CHIP | 24K | 5% | 1/10W |
| R439 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R440 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R441 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R442 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R443 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R444 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R445 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R446 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R471 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R472 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/10W |
| R473 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R477 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R501 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R502 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R504 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R505 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R510 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W |
| R511 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/10W |
| R518 | 1-216-797-11 | METAL CHIP | 10 | 5% | 1/10W (AEP,UK,E) |
| R519 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/10W (AEP,UK,E) |
| R520 | 1-216-832-11 | METAL CHIP | 8.2K | 5% | 1/10W (AEP,UK,E) |
| R521 | 1-216-797-11 | METAL CHIP | 10 | 5% | 1/10W (AEP,UK,E) |
| R800 | 1-216-230-00 | RES-CHIP | 22K | 5% | 1/8W |
| R801 | 1-216-230-00 | RES-CHIP | 22K | 5% | 1/8W |
| R802 | 1-216-295-11 | SHORT CHIP | 0 | | |
| R803 | 1-218-871-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R804 | 1-218-754-11 | METAL CHIP | 120K | 0.5% | 1/10W |
| R806 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R807 | 1-218-703-11 | METAL CHIP | 3K | 0.5% | 1/10W |
| R808 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R809 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R811 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R812 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R833 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R845 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R866 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R901 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R903 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R904 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R906 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R910 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R913 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R914 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| R915 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R920 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W |
| R921 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R922 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R929 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W |
| R949 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R950 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| | | < TRANSFORMER > | | | |
| T800 | 1-439-812-11 | TRANSFORMER, DC-DC CONVERTER | | | |
| | | < THERMISTOR (POSITIVE) > | | | |
| TH100 | 1-801-792-21 | THERMISTOR, POSITIVE | | | |
| | | < TUNER > | | | |
| TUX501 | A-3220-887-A | TUNER UNIT (TUX-030) | | | |
| | | < VIBRATOR > | | | |
| X301 | 1-567-098-41 | VIBRATOR, CRYSTAL (32.768kHz) | | | |
| X302 | 1-767-419-21 | VIBRATOR, CRYSTAL (6MHz) | | | |
| X501 | 1-579-900-21 | VIBRATOR, CRYSTAL (4.3MHz) (AEP,UK,E) | | | |
| ********** | | | | | |
| | A-3274-698-A | SERVO BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C1 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C3 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C4 | 1-104-609-11 | ELECT CHIP | 100uF | 20% | 4V |
| C5 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C6 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C8 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C9 | 1-162-924-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C10 | 1-162-924-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C11 | 1-162-909-11 | CERAMIC CHIP | 4PF | 0.25PF | 50V |
| C13 | 1-162-916-11 | CERAMIC CHIP | 12PF | 5% | 50V |
| C14 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C15 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C16 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C17 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C18 | 1-162-966-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C19 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C20 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C21 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C22 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C23 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C24 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C25 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C27 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C29 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C30 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C34 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C35 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C36 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C38 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C39 | 1-126-391-11 | ELECT CHIP | 47uF | 20% | 6.3V |
| C40 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C41 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C43 | 1-162-967-11 | CERAMIC CHIP | 0.0033uF | 10% | 50V |
| C44 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C45 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C51 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C53 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C54 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C55 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C56 | 1-128-934-11 | CERAMIC CHIP | 0.33uF | 20% | 10V |
| C57 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C58 | 1-162-966-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C59 | 1-104-609-11 | ELECT CHIP | 100uF | 20% | 4V |
| C60 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C61 | 1-126-391-11 | ELECT CHIP | 47uF | 20% | 6.3V |
| C62 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C63 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C65 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C67 | 1-104-851-11 | TANTAL. CHIP | 10uF | 20% | 10V |
| C68 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C69 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C70 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C75 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C77 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C78 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C79 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C81 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C102 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C111 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C112 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C113 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C114 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| | | < CONNECTOR > | | | |
| CN1 | 1-815-352-11 | CONNECTOR, BOARD TO BOARD 30P | | | |
| CN2 | 1-794-153-21 | CONNECTOR, FPC (ZIF) 16P | | | |
| CN3 | 1-816-275-21 | CONNECTOR, FFC/FPC 6P | | | |
| | | < FERRITE BEAD > | | | |
| FB2 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB3 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| FB6 | 1-469-144-21 | FERRITE, EMI (SMD) | | | |
| | | < IC > | | | |
| IC1 | 8-759-699-98 | IC uPD63711GC-8EU | | | |
| IC2 | 8-759-658-87 | IC BA5810FP-E2 | | | |
| IC3 | 6-703-905-01 | IC HD6432238RWN35TEI | | | |
| IC4 | 6-702-661-01 | IC UT62L1024LC-55LLI | | | |
| IC5 | 6-702-153-01 | IC CXD9684R-005 | | | |
| IC6 | 8-759-645-31 | IC RN5RZ25BA-TL-FA | | | |
| IC7 | 8-759-491-50 | IC TC74VHCT244AFT(EL) | | | |
| IC12 | 8-759-196-96 | IC TC7SH08FU-TE85R | | | |
| | | < JUMPER RESISTOR > | | | |
| JR1 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| JR3 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| JR5 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| JR6 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| JR12 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| JR13 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| JR14 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| JR15 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| JR17 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| JR21 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/10W |
| | | < COIL > | | | |
| L4 | 1-216-001-00 | METAL CHIP | 10 | 5% | 1/10W |
| L6 | 1-469-144-21 | FERRITE, EMI (SMD) | | | |
| L8 | 1-414-398-11 | INDUCTOR | 10uH | | |
| | | < TRANSISTOR > | | | |
| Q1 | 8-729-904-87 | TRANSISTOR | 2SB1197K-R | | |
| | | < RESISTOR > | | | |
| R3 | 1-216-806-11 | METAL CHIP | 56 | 5% | 1/10W |
| R5 | 1-218-344-11 | METAL CHIP | 7.5K | 5% | 1/10W |
| R7 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/10W |
| R8 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R9 | 1-216-840-11 | METAL CHIP | 39K | 5% | 1/10W |
| R10 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/10W |
| R12 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W |
| R13 | 1-216-807-11 | METAL CHIP | 68 | 5% | 1/10W |
| R14 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R15 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/10W |
| R26 | 1-216-806-11 | METAL CHIP | 56 | 5% | 1/10W |
| R29 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R30 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R45 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R46 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R47 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R48 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R49 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R50 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R51 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R52 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R53 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R54 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R55 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R64 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R65 | 1-216-819-11 | METAL CHIP | 680 | 5% | 1/10W |
| R67 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R68 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/10W |
| R69 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R70 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R71 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R72 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R73 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R74 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R75 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R76 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R77 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R78 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R81 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R82 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R83 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R84 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R85 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R86 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R87 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |

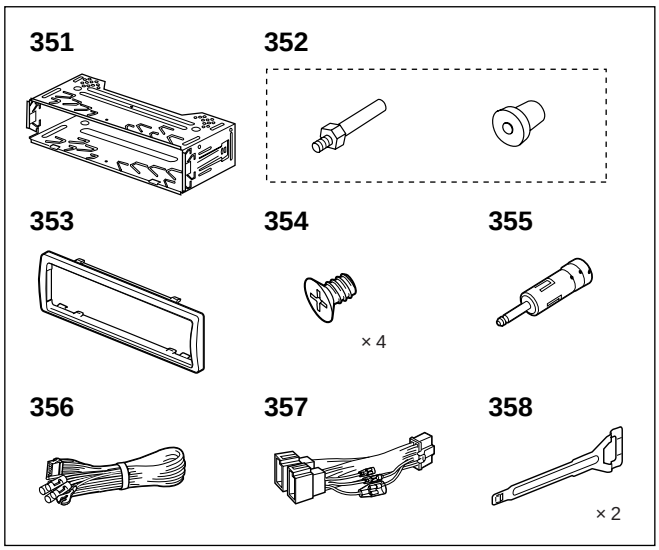
**SERVO** **SUB** **SWITCH**

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R88 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R89 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R90 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R91 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R92 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R93 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R94 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R95 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R96 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R97 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W |
| R98 | 1-216-834-11 | METAL CHIP | 12K | 5% | 1/10W |
| R100 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R102 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R103 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R104 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R105 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R106 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R107 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R109 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R111 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R113 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R114 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R115 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W |
| R116 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R117 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R118 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R121 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R124 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/10W |
| R126 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R127 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R128 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R129 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R130 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R131 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R132 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R133 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R134 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R135 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R136 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R142 | 1-216-815-11 | METAL CHIP | 330 | 5% | 1/10W |
| R143 | 1-218-484-11 | METAL CHIP | 750 | 5% | 1/10W |
| R144 | 1-216-812-11 | METAL CHIP | 180 | 5% | 1/10W |
| R145 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/10W |
| R146 | 1-216-815-11 | METAL CHIP | 330 | 5% | 1/10W |
| R147 | 1-218-484-11 | METAL CHIP | 750 | 5% | 1/10W |
| R148 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| R149 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/10W |
| R150 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R151 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R152 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/10W |
| R153 | 1-216-818-11 | METAL CHIP | 560 | 5% | 1/10W |
| R154 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/10W |
| | | < NETWORK RESISTOR > | | | |
| RB1 | 1-233-576-11 | RES, CHIP NETWORK 100X4 | | | |
| RB2 | 1-233-576-11 | RES, CHIP NETWORK 100X4 | | | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | | < VIBRATOR > | | | |
| X1 | 1-795-520-11 | VIBRATOR, CERAMIC (16.9344MHz) | | | |
| X2 | 1-795-127-21 | VIBRATOR, CERAMIC (12.288MHz) | | | |
| ********** | | | | | |
| | 1-687-950-11 | SUB BOARD | | | |
| | | ********** | | | |
| | 1-783-268-11 | CABLE, FLAT (FFC) 11P (CN501) | | | |
| | | < CAPACITOR > | | | |
| C533 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C535 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C536 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C537 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C538 | 1-162-959-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C539 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C540 | 1-127-760-11 | CERAMIC CHIP | 4.7uF | 10% | 6.3V |
| C541 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V |
| | | < DIODE > | | | |
| D506 | 8-719-069-54 | DIODE UDZS-TE17-5.1B | | | |
| D507 | 8-719-978-33 | DIODE DTZ-TT11-6.8B | | | |
| D511 | 8-719-083-66 | DIODE UDZS-TE17-18B | | | |
| D512 | 8-719-079-10 | LED CL-220UB-X-TS (DISC IN) | | | |
| D513 | 8-719-083-14 | PHOTO SENSOR RRX9000-0501 | | | |
| D514 | 8-719-988-61 | DIODE 1SS355TE-17 | | | |
| | | < FERRITE BEAD > | | | |
| FB503 | 1-500-329-21 | INDUCTOR, FERRITE BEAD | | | |
| | | < IC > | | | |
| IC503 | 8-759-830-18 | IC RRX9000-0601#1 | | | |
| | | < TRANSISTOR > | | | |
| Q503 | 8-729-216-22 | TRANSISTOR 2SA1162-G | | | |
| Q504 | 8-729-900-53 | TRANSISTOR DTC114EK | | | |
| | | < RESISTOR > | | | |
| R509 | 1-216-846-11 | METAL CHIP | 120K | 5% | 1/10W |
| R531 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W |
| R532 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R533 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/10W |
| R534 | 1-216-044-00 | METAL CHIP | 620 | 5% | 1/10W |
| R535 | 1-216-044-00 | METAL CHIP | 620 | 5% | 1/10W |
| R536 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R537 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R538 | 1-216-850-11 | METAL CHIP | 270K | 5% | 1/10W |
| | | < SWITCH > | | | |
| SW501 | 1-692-135-21 | SWITCH, KEYBOARD (RESET) | | | |
| ********** | | | | | |
| | A-3326-298-A | SWITCH BOARD, COMPLETE (including SW900) | | | |
| | | ********** | | | |
| ********** | | | | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | MISCELLANEOUS | |
| | | ********** | |
| 8 | 1-776-207-72 | CORD (WITH CONNECTOR) (POWER) | (US,CND,E) |
| 8 | 1-776-527-71 | CORD (WITH CONNECTOR) (ISO) (POWER) | (AEP,UK) |
| 107 | 1-777-246-41 | CORD (WITH CONNECTOR) (ANTENNA) | |
| 108 | 1-790-375-32 | CORD (WITH CONNECTOR) (SUB OUT (MONO)) | |
| 167 | 1-687-952-11 | FLEXIBLE BOARD | |
| 301 | A-3337-193-A | FLOATING BLOCK ASSY (including M901) | |
| 307 | 1-823-951-11 | CABLE, FLEXIBLE FLAT (16 CORE) | |
| ⚠310 | 8-820-165-06 | OPTICAL PICK-UP KSS-721A/C-RP | |
| 311 | 1-676-707-11 | PICK-UP FLEXIBLE BOARD | |
| F901 | 1-532-877-11 | FUSE (BLADE TYPE) (AUTO FUSE) 10A | |
| M601 | X-3378-769-1 | MOTOR ASSY (OPEN/CLOSE) | |
| M902 | A-3301-985-A | MOTOR ASSY, SLED (SLED) | |
| M903 | A-3315-039-A | MOTOR SUB ASSY, LO (LOADING) | |
| ********** | | | |
| | | ACCESSORIES | |
| | | ********** | |
| | 1-476-546-12 | REMOTE COMMANDER (RM-X111) (AEP,UK,E) | |
| | 1-476-546-22 | REMOTE COMMANDER (RM-X110) (US,CND) | |
| | 3-230-549-01 | LID, BATTERY CASE (for RM-X110/X111) | |
| | 3-251-114-11 | MANUAL, INSTRUCTION (ENGLISH,FRENCH, SPANISH) (US,CND) | |
| | 3-251-114-21 | MANUAL, INSTRUCTION (ENGLISH,GERMAN, FRENCH,ITALIAN,DUTCH) (AEP,UK) | |
| | 3-251-114-31 | MANUAL, INSTRUCTION (ENGLISH, TRADITIONAL CHINESE) (E) | |
| | 3-251-115-11 | MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH,SPANISH) (US,CND) | |
| | 3-251-115-21 | MANUAL, INSTRUCTION, INSTALL (ENGLISH, GERMAN,FRENCH,ITALIAN,DUTCH) (AEP,UK) | |
| | 3-251-115-31 | MANUAL, INSTRUCTION, INSTALL (ENGLISH, TRADITIONAL CHINESE) (E) | |
| | X-3383-449-1 | COVER (PANEL) ASSY (US,CND) | |
| ********** | | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | PARTS FOR INSTALLATION AND CONNECTIONS | |
| | | ********** | |
| 351 | X-3382-647-1 | FRAME ASSY, FITTING | |
| 352 | X-3366-405-1 | SCREW ASSY (EXP), FITTING (AEP,UK,E) | |
| 353 | X-3382-821-1 | COLLAR ASSY | |
| 354 | 3-934-325-01 | SCREW (+K 5X8 TP) (US,CND,E) | |
| 355 | 1-465-459-21 | ADAPTOR, ANTENNA (AEP,UK) | |
| 356 | 1-776-207-72 | CORD (WITH CONNECTOR) (POWER) | (US,CND,E) |
| 357 | 1-776-527-71 | CORD (WITH CONNECTOR) (ISO) (POWER) | (AEP,UK) |
| 358 | 3-246-471-01 | KEY (FRAME) | |




| | |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.<br>Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.<br>Ne les remplacer que par une piéce portant le numéro spécifié. |

## REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

| Ver. | Date | Description of Revision |
|---|---|---|
| 1.0 | 2003. 04 | New |
| | | |
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| | |